EMPLOYMENT OF THE TUBERCULOUS

BY

ALICE CAMPBELL KLEIN *and*
GRANT THORBURN, M.D.

Digitized by the Internet Archive
in 2026

https://archive.org/details/employmentoftube0000alic

EMPLOYMENT OF THE TUBERCULOUS

An Experiment in Medically Supervised Employment for Patients Recovering from Tuberculosis

BY

ALICE CAMPBELL KLEIN

AND

GRANT THORBURN, M.D.

Price 50 Cents

NEW YORK TUBERCULOSIS AND HEALTH ASSOCIATION

1928

12. M. 265.

TABLE OF CONTENTS

CHAPTER I

INTRODUCTORY

SECTION I. ORIGIN OF THE VOCATIONAL SERVICE 5

Reasons for conducting the experiment; Previous undertakings in employment of the tuberculous; Definition of the problem; Financing and statement of purpose

SECTION II. OPERATION OF THE VOCATIONAL SERVICE 8

Staff; Recruiting and publicity; Type of patient and volume of work; Procedure with new cases; Medical follow-up; Home visiting; Method of securing jobs; Kinds of work sought and avoided; Part-time work; Vocational training; Record keeping; Staff conferences; Costs

CHAPTER II

STATISTICAL ANALYSIS OF CASE RECORDS

SECTION I. TYPE OF PATIENT APPLYING AT THE VOCATIONAL SERVICE 18

ANALYSIS OF SOCIAL FACTORS 19

Age and sex; Nationality; Knowledge of English; Education; Marital and economic condition; Economic status

ANALYSIS OF CASES FROM VOCATIONAL VIEWPOINT 23

Type of work; Stability of employment; Suitability of former vocation; Vocational resourcefulness of patients; Incidence of other employment handicaps than tuberculosis

ANALYSIS OF CASES FROM MEDICAL STANDPOINT 28

Pulmonary condition at time of initial examination; Medical care before application to the Vocational Service; Physical handicaps other than tuberculosis

SUMMARY 33

SECTION II. ANALYSIS OF RESULTS: VOCATIONAL AND MEDICAL . . . 35

VOCATIONAL RESULTS 35

Work history after applying; Period of employment; Earnings; Comparison of salaries before and after illness; Comparison of classes of work before and after illness; Adherence to medical advice in securing work; Reasons given for termination of employment; Analysis of those who did not work after applying to the Vocational Service

MEDICAL RESULTS 42

Duration of medical observation; Changes in diagnosis since first examination *a.* Incipient cases, *b.* Moderately advanced cases, *c.* Far advanced cases; A possible index of effectiveness of program; Study of relapse cases

SUMMARY 48

CHAPTER III

PROBLEMS THAT ARISE IN CONNECTION WITH PLACEMENT OF THE TUBERCULOUS

Need for special provision for part-time work 50
Growing tendency of industry to require physical examination of employees 51
Competition of commercial employment services 51
Limitations of local industries 52
Erroneous ideas of patients about work 53
Basis for referring applicants 53

CHAPTER IV

HOW CAN PLACEMENT FOR THE TUBERCULOUS BE MOST EFFECTIVELY ORGANIZED

Russell Sage Foundation study of employment bureaus for the handicapped 55
Problem of disposition of the bureau's work at the end of the experimental period 56
Conclusions of Foundation's report 56
The place of the tuberculous in a general bureau for the handicapped 57

CHAPTER V

QUESTIONS WHICH THE EXPERIMENT HOPED TO ANSWER

Is it possible to determine what are suitable occupations for the tuberculous? 58
Do ex-patients actually need vocational advice or employment assistance and why? 58
How do employers and fellow employees feel about employment of the tuberculous? If their attitude is hostile can this hostility be minimized? 59
Can the relapse of ex-patients actually be controlled in part at least by providing some combination of vocational and medical after-care? 60
If the relapse rate can be controlled by such a program, how can the resources of the community best be organized to provide such after-care? 60

CHAPTER VI

SUMMARY OF CONCLUSIONS

APPENDICES

A. Three year budget of the Vocational Service 64
B. Text of pamphlet "Completing the Cure" 65
C. List of organizations in New York City doing employment work for the handicapped 68
D. Work tolerance classification 69
E. List of 676 cases classified according to main occupation prior to applying to the Vocational Service 70
F. Sample of letter sent to patients asking them to return for final examination 71
G. Sample record card used for case history 72

CHAPTER I—INTRODUCTORY

SECTION I. ORIGIN OF THE VOCATIONAL SERVICE

IN 1923 the New York Tuberculosis and Health Association undertook a three-year experiment in supervised employment and medical follow-up of quiescent and arrested cases of tuberculosis, hoping to determine whether such supervision and after-care could contribute to lowering the relapse rate of sanatorium graduates. The three-years' work was followed by a study of the cases served, the report on which is herewith given.

Reasons for conducting the experiment

It has been realized in recent years by all those dealing with the tuberculous that the partial arrest of the disease attained in the sanatorium or by a period of curing at home is only the first step in the patient's problem, and that the next most important step is to aid him to maintain the resistance gained during the rest period. Most persons are forced by the financial strain which is the natural concomitant of months of idleness to return to work as soon as their strength seems to permit. While we have little comprehensive data on the relapse rate of the general run of patients after returning to work we do know that it is high; partly because tuberculosis is a disease with a strong tendency to relapse and partly because of ignorance of patients and of those advising them as to what kinds of work they should undertake and what precautions they should observe while working. It is generally believed that the annual budget of about $83,000,000[1] expended in tuberculosis institutions in this country, to say nothing of an estimated additional capital investment of approximately $277,000,000[1] could yield a much greater harvest of health if accompanied by some type of vocational after-care in addition to that furnished by private physicians and clinics; and that these two groups would be glad of any light that could be shed on the subject of after-care, especially with respect to employment of the tuberculous.

Previous undertakings in employment of the tuberculous

While the field is still comparatively unexplored, some splendid work has already been done on the subject of providing employment for the tuber-

[1] See "Tuberculosis Hospitalization," by Godias J. Drolet, American Review of Tuberculosis, December, 1926, Vol. XIV, No. 6.

culous, both in colonies where the patient and family live in a village of ex-patients under careful social and medical supervision and have a choice of trades to work at, and in shops run on a part-time basis where the type and hours of work are prescribed by medical advisors in accordance with the patient's condition. Notable examples of such undertakings are Papworth Hall in England, a tuberculosis colony; the Altro Shops, a model garment factory for the tuberculous in New York City; and the recently established Potts Memorial at Livingston, New York, a sanatorium designed for the further rehabilitation of patients discharged by other sanatoria or physicians. Vocational training of the tuberculous is carried on to some extent by state rehabilitation bureaus in a few states along with training of other types of physically handicapped persons.

The New York Tuberculosis and Health Association itself had attacked the problem of after-care of the tuberculous before the establishment of the bureau herein described: first through the Reco Shops—a training school for tuberculous ex-service men which was conducted in co-operation with the Federal Government and offered training in jewelry making, watch repair and cabinet work; and also through its Advisory Service, a department which acted in an advisory capacity to industrial, commercial and banking firms, in diagnosing and securing sanatorium care for such of their employees as were referred to the Association by their medical departments, and in following them up on the job for a year or more after they returned to employment.

Each of the undertakings mentioned, however, is concerned with limited groups. The colony idea, while ideal for a few, is obviously not suited to many. Special shops can offer only one or two occupations each because of the expense; and service such as the last mentioned, the Advisory Service, applies of course only to those who are returning to work in the limited number of firms involved.

Definition of the problem

The chief problem remained that of the field of employment for the mass of ex-patients who would return to work in the normal shop, office or store, and who needed guidance in choosing the right type of work, help in finding it and supervision while on it. It was to these questions that the three-year experiment addressed itself:

> Is it possible to determine what are suitable jobs for the ex-tuberculous? Do they actually need vocational advice or employment assistance or both and why?

How do employers and other employees feel about employment of the tuberculous? If their attitude is hostile can the hostility be minimized?

Can the relapse rate of ex-patients actually be controlled, in part at least, by a combination of vocational and medical after-care?

If so how can the resources of the community best be organized to provide such after-care?

Financing and statement of purpose

Consultation with tuberculosis experts, commercial, state and other employment bureaus, and with family welfare agencies confirmed the importance of these questions and the need of attempting to answer them. Accordingly a plan for a co-operative employment and medical service for quiescent and arrested cases of tuberculosis was drawn up and submitted to the Laura Spelman Rockefeller Memorial with a request for funds for a three-year experiment. The purpose of the bureau was set forth in the prospectus:

"1. To study industries and analyze the jobs therein, in order to discover suitable occupations for persons with tuberculosis in quiescent or arrested stages.

"2. To give vocational counsel to and find employment for persons in arrested or quiescent stages of tuberculosis, making the initial contact in the sanatoria where possible, co-ordinating this work with the medical and social services of tuberculosis clinics, sanatoria and family welfare agencies.

"3. To precede placement with thorough medical examination, and to follow placement with intensive medical and social service supervision.

"4. To broaden the opportunities for suitable employment for the tuberculous by a campaign of education of employers.

"5. To develop in connection with the existing training schools for the handicapped and with selected industrial establishments, facilities for trade training for individuals who cannot be placed directly at suitable remunerative work.

"6. To study and interpret the experience derived from the aforementioned activities for the benefit of tuberculosis agencies generally."

The total amount asked for was $32,000 to be spent on an annually decreasing budget, any balance necessary for the second and third years to

be supplied by the New York Tuberculosis and Health Association.[2] The grant was approved by the foundation and actual operation of the bureau began July 1, 1923.

SECTION II. OPERATION OF THE VOCATIONAL SERVICE

Staff

Before turning to the results of the study it may be well to summarize briefly the actual set-up of the Vocational Service as the bureau was named, its general procedure in handling patients and the principles followed in finding employment and supervising work.

The question to which the experiment addressed itself was the organization in a single bureau of those types of service which the various agencies in the community offer to the returning patient, and to effect this organization in such a way that the bureau might serve as a demonstration for other interested communities while serving its own clients. The average patient returning from a sanatorium has need of three kinds of service from his community: medical care which he can obtain from his private physician or a clinic; vocational advice or actual employment assistance which he can get in a public or private employment agency; and help in making social and psychological adjustments, to provide which is the function of the family welfare agency. He needs these three services, however, not as separate units but molded into one program. In other words he needs advice on health, job and family life—all from the health standpoint.

For this reason the bureau itself was made representative of these three community services—the clinic, the employment service and the case work agency. A staff was engaged, consisting of a secretary familiar with both employment and tuberculosis work; the medical advisor of the Association who had given medical supervision to employment both in the Reco Shop and the Advisory Service; a medical case worker; two placement workers, one a woman with employment experience and the other a man recently discharged from a tuberculosis sanatorium; and a stenographer.

Recruiting and publicity

The recruiting of applicants for the new Vocational Service was done through establishing contacts with agencies already dealing with patients or ex-patients. All the sanatoria, both private and public, accepting New York City patients, and the family welfare agencies were visited. The new project was explained, and their co-operation invited in referring applicants

[2] Details of budget will be found in Appendix A.

for employment. Letters were sent to the tuberculosis clinics, tuberculosis specialists, and employment bureaus for the same purpose. Three pamphlets were prepared to further co-operation from those with whom the bureau would be dealing, one addressed to tuberculosis workers, one to patients for distribution in the sanatoria, and one to employers answering some of the commonest objections to employing persons with a record of tuberculosis. During the three-year period, form letters to selected groups of employers and physicians were sent out; addresses were made by the secretary and the medical advisor at the annual National Tuberculosis Conference and at the division on "Work for Handicapped" of the National Conference of Social Work; the project was explained at meetings of the Sanatorium Conference of New York City and the Association of Tuberculosis Clinics; a radio talk was given to the general public; and newspaper and magazine articles written describing the work of the Vocational Service. Although some general publicity was thus achieved, the main attempt was to reach patients themselves and those having contact with patients. One of the pamphlets in particular, "Completing the Cure,"[3] seemed to meet the need of patients and was widely distributed not only to patients but on request to Tuberculosis Associations in other cities.

Type of patient and volume of work

Applicants began coming to the bureau almost immediately, reaching eventually the volume of about one new case each working day, with many reapplications for employment of old cases as time went on.

On the assumption that active cases should not be at work, only quiescent and arrested cases were received. Those referring patients were asked to send a diagnosis where possible. When patients came without such diagnosis, the referring agency was called and an attempt made to secure it.

Procedure with new cases

If the patient's condition was obviously active he was referred back to a clinic, to the Hospital Admission Bureau[4] or, in some cases, to a private sanatorium. If there was reasonable doubt as to his or her condition, enough of the record was taken to be of use to the medical advisor, the patient given a sputum bottle, and an appointment made for examination in any of

[3] The text of this pamphlet is to be found in Appendix B. It was later translated into Yiddish by the medical director of Bedford Hills Sanatorium and distributed in this form through the Committee for Care of the Jewish Tuberculous.

[4] The admitting office to the Municipal Sanatoria.

the three morning examination periods. In emergency cases the examination was sometimes made on the same day. Before the patient returned for examination the case was cleared, through the Social Service Exchange, by the medical case worker who usually held the preliminary interview, and form letters were sent to the agencies knowing the patient and his family. Much valuable light was shed on cases by these co-operating agencies and they were constantly consulted by the medical case worker in the formation of plans.

When the patient returned for examination a fairly complete history was taken by the medical social worker who assisted at all clinics. The case was summarized to the physician in its medical, social and employment aspects. The patient was then given a detailed chest examination and a general physical survey. A fluoroscope was added to the equipment of the medical office and patients were referred for X-ray also when this seemed advisable.

Following his examination a report was made by the physician to the placement worker, and the patient turned over to the placement worker for interview. No patients were sent to jobs until the sputum report was returned, and then only when this was negative.

Since the bureau was best adapted to serve cases of pulmonary tuberculosis, other types of the disease were referred elsewhere for medical advice and placement.

Thus an important part of the medical case worker's function consisted in referring patients to clinics or private physicians for more detailed diagnosis and recommendations on other forms of tuberculosis than pulmonary or on other physical disabilities than tuberculosis. Where from an employment aspect the main handicap was something other than pulmonary tuberculosis the patient was usually referred to the appropriate employment service and an offer made to keep the patient under observation for the pulmonary condition while he was at work on the job found by the co-operating employment bureau for the other type of physical handicap. This was found necessary to avoid duplication of effort because of the large numbers of such bureaus operating in New York City.

Conscious of the fact that the patient's psychology is an important factor in a successful rehabilitation program, the employment worker made an earnest attempt to learn the patient's interests, hobbies, and attitude toward work, and to obtain some leads to follow in looking for a job. Many applicants wanted only advice about the kind of work suitable and preferred to seek it themselves. These, of course, were the more enterprising and therefore usually the most successful cases. An attempt was always made to induce an applicant to return to his old line of work and to his old job

wherever this was possible. When this was not feasible, work was sought for him in some new line. Patients were not encouraged to come to the office daily while waiting for work, as is the practice in commercial bureaus. They were sent home after their examination and told to wait there until notified. Telephone, letters and telegraph were used to send for them when needed. This was expensive, but it saved the patients fatigue, nerve strain and discouragement.

Medical follow-up

The securing of work was often a matter of days, and sometimes of weeks. While waiting for a job and while on one each patient was kept under medical supervision by means of evening clinics held twice a week and attended monthly by the patients and in some cases oftener. At these evening clinics the patient was encouraged to talk over his job with the case worker and physician. Often adjustments in the work were recommended to the placement workers. Upon such recommendation by the physician the job was changed or the employer induced to remedy the difficulty.

Home visiting

Throughout the period of observation the home and family were visited as often as limitations of staff would permit. A visit was made to each home as soon as possible after the patient came to the bureau, and more visits were made when necessary. If other agencies were at work on the case they were kept in close touch by visit and telephone, and often changes in budget were recommended to meet the new conditions of work. Such agencies occasionally supplied tools or carfare at the request of the case worker.

The children in patients' families were taken to clinics for observation unless this already had been done, and general rules of hygiene were explained to the family, as well as the particular precautions necessitated by the presence of a tuberculous patient.

Method of securing jobs

In almost all cases individual visits were made to the employer by the placement worker in soliciting work. It was found that the telephone method was unreliable and that letters brought no response.[5] Unless a particular job had been promised, applicants were not sent out to employers except in a few special instances.

[5] This is contrary to the experience of employment bureaus for other types of physically handicapped persons and is probably attributable therefore to dread of the disease.

In every case the employer was informed of the applicant's history and present condition, and assured that if the patient were employed he would be kept under medical supervision and the employer notified if any danger to himself or to others developed. This served to give the new employee a feeling of security by removing the ex-patient's ever present fear of the discovery of his medical history. It also gave employers assurance that they were exposing their other employees to no risk since the organization which was doing the placement work was the very one whose principal function was prevention of tuberculosis and to which many of them had contributed annually through the purchase of Christmas Seals.

Whenever possible the placement worker actually saw the shops and the conditions under which the applicant would work. When this was not possible, the job was talked over with the patient after a day or two of employment in order to determine what the working conditions were. In all cases there was a follow-up on the job, other than that obtained through the evening clinic consultation. Each patient was given a card to report employment, and if this card was not returned to the office he was reached by telephone, letter or personal visit. In very few cases did the bureau follow up the patient through the employer, as it was felt that this might annoy him and jeopardize the patient's job.

Kinds of work sought and avoided

When it came to deciding what kind of work was suitable in general and what was feasible for each patient in particular, the bureau had to proceed in a tentative manner, there being but little information as to industries, trades or jobs suitable for ex-patients. The method was slow and clumsy but apparently the only possible one in such a new field. Certain broad guiding principles were worked out at the beginning for selecting jobs, based largely on knowledge of the disease and then each case treated as an individual problem. In general the policy was followed of seeking light indoor work, preferably seated, on the theory, contrary to the popular tradition, that practically all outdoor work involves physical strain, fatigue or at best long hours and exposure to inclement weather. The distance of the work place from the patient's home, the transportation facilities and cost of travel were all important considerations in selecting work.

Certain kinds of work were scrupulously avoided because of danger of spread of infection: handling of food or drinks except for wrapped goods; care or teaching of children; making of unsterilized toys; work bringing the employee into close contact with others, such as barbering and dentistry.

This precaution was thought necessary even though only negative sputum cases were handled, and the patient was required to discontinue work at the first sign of activity of the disease.

The types of work which were avoided for the sake of the patient himself were those involving long hours, muscular or nervous strains, dust of any kind, odors, vibration, extremes of temperature, humidity, continued exposure to bad weather, in short, any work that was a heavy tax on the patient's vitality or in particular on the chest and lungs. These restrictions eliminated many of the most easily obtainable jobs, such as the following: watchman's work, particularly where stair climbing was involved; freight elevator operating; passenger elevator operating where there was a heavy door to manipulate; most porter work; most forms of farm work;[6] bell hopping or any other form of hotel work that involved the long and short shift; piecework of any kind under high tension; processes involving use of chemicals, such as battery work, soldering, metal polishing; work on cigars and cigarettes; celluloids; painting; varnishing; polishing; work on leather goods; work at any of the building trades; out-door and commission selling;[7] chauffeuring or taxi driving where repairs were to be made by the driver and hours uncertain; work in subways or on unprotected elevated stations; and grinding and buffing of any materials except those of an organic nature and then only when an adequate blower system was provided. Sometimes a suitable job had to be ruled out because work at a nearby bench created undesirable conditions.[8]

Among other considerations in finding work were the amount of stair climbing involved, the likelihood of required overtime, the degree of permanence and security on the job, seasonal characteristics of the trade, familiarity with the work, adequacy of income, and, as already mentioned, the distance of the work from home and ease of access.

Out of this method of selecting some jobs and excluding others because of the specific characteristics of each there did grow, however, a preferential list of suitable occupations for ex-patients.

For the larger number of the comparatively unskilled laborers, women as well as men, some form of assembly work—packing, inspecting and the like,

[6] One man was placed on a chicken farm as an experiment but the work proved to be far too heavy.

[7] This was eliminated partly because of the walking and carrying necessitated and partly because of the uncertainty of income.

[8] One man was placed on piano action work and had to be moved not because his work was unsuitable but because a man near him was creating felt dust by filing hammer felts.

—was usually found Odd jobs such as light porter work, handy man, etc., were secured for some, but it was necessary to keep a close eye on these to see that no hard physical labor was involved as time went on. A limited number of eight-hour shift watchmen's jobs were secured. Except in one or two cases where the man's condition was excellent and the work near home, anything longer than ten-hour watchmen's jobs were not acceptable. Power machine and hand sewing, companion work, manicuring, beauty shop, odd jobs, fountain pen chasing (decorating) selling in small shops, cashiering, lamp shade work and care of tuberculous patients were some of the kinds of work found for women applicants. For both men and women, executive or professional work to which they were used and which could be done without strain was approved, and all forms of clerical work such as private secretaryships, typing, filing, bookkeeping, accounting, multigraph operating, doctor's assistant, etc. were used. In general it was preferred not to use clerical positions in banks, since the demand for overtime in these institutions is likely to be great at certain times.

Sanatorium positions proved an excellent solution for many, particularly where the disease was quiescent. These included nursing, ward maid, private secretary, unskilled clerical work, telephone operator, dietitian, children's matron, chauffeur, porter, X-ray technician and engineer in charge of road work.

Part-time work

Medical examinations indicated that fully two-thirds of the applicants to such a bureau would be better off if they started to work on a part-time basis, and some of them should not work more than part of each day or two or three days a week for months after their discharge, if ever. A placement bureau for the tuberculous with no outlet for part-time workers is therefore in an anomalous situation. The bureau had access of course to the Altro Work Shops, the part-time garment factory for the Jewish tuberculous, to rely on for Jewish patients. The Association for the Prevention and Relief of Tuberculosis, now a part of the Association for Improving the Condition of the Poor,[9] maintained a part-time sewing shop for women to which cardiacs and the tuberculous were admitted. The Institute for Crippled and Disabled was able to offer part-time training for one or two cases. But these three organizations by their very nature solved the problem for only a few cases. There are two or three other shops for the handicapped in the city where work may be done on a part-time basis, but they would not admit

[9] One of the larger of the family agencies in the city.

the tuberculous. Here and there part-time work was found in regular industry, but the supply was not nearly enough to meet the demand. Relief watchmen, Saturdays, Sundays and holidays; reception clerks during busy hours; part-time stenography or typing; relief salesmen; occasional part-time sanatorium positions;—these and a few others constituted all the suitable part-time opportunities available. Tea room jobs, care of children, tutoring, general housework and many other kinds of work ordinarily done on a part-time basis were barred because of danger of infection to others.

An earnest attempt was made not only to find part-time work but to induce employers to create it by employing two people for one job, having them work morning and afternoon respectively, or on alternate days. This plan has obvious objections and was not successful.

Vocational training

At first glance the best vocational solution for many patients coming from sanatoria and not able to return to their old line of work would seem to be training in a new trade.

In view, however, of the financial, psychological and physical condition of such patients, it is obvious that this is a plan ideal only in theory and practical in a very limited number of cases. When a long period of sanatorium care is completed, whether free or not, and often preceded by an expensive illness, the graduate of such an illness is in no financial position to start on a training course in a new trade. Even if tuition can be paid from outside sources, there is still the need for wages on which to live. Moreover, the graduate of any training course without practical experience in his line, has to start at as low a salary as the man who is learning on the job. He may progress faster after some months, but he does not start higher in the wage scale. The apprentice method of trade training is seldom suitable for the ex-tuberculous even if some organization can be found to pay a small salary in lieu of tuition, for almost invariably the duties of an apprentice consist largely of doing the undesirable work for the skilled worker, such as lifting, carrying and errand running, with a very small margin of actual training thrown in.

From the psychological aspect, too, the sanatorium graduate is in no position to undertake training of any length. He usually falls into one of two classes: (1) He has become restless and worried by family responsibilities during his period of curing and wants immediate work; or (2) He has lost much of his ambition and morale because of his necessary idleness and has become over-timorous about returning to work. In the latter case he would

grasp at a training period as a stop gap which would permit him to retain his own and his family's respect and yet not actually work. For psychological reasons, however, to offer him this opportunity would probably be the worst possible course. Moreover, the chance of his continuing in the new trade after time and money had been spent in learning it would be slight, since his undertaking it did not represent a real vocational desire but only a postponement of taking an actual job. Courses of training were selected and carried through in a few cases where these objections did not seem to obtain, but were not generally successful. The result usually seemed beneficial in inverse proportion to the length of the training.

Record keeping

Largely because of the fact that the work of the bureau was part of a planned study, more complete records were kept than would otherwise have been necessary. These comprised a comprehensive history card,[10] a chronological running record of all contact with cases, and of course full reports of all examinations and medical recommendations.

Staff conferences

At meetings of the staff of the bureau, held Saturday mornings, plans were made for new cases, adjustments in work, relations with other agencies, and difficult cases discussed. Opportunity was given the lay members of the staff to learn more about the implications of the disease from the medical consultant.

Cost

The total expenditures for the Vocational Service during the three years it was in operation were $65,865. Of this amount, $44,681 was for salaries of the staff required, which included the services of a tuberculosis specialist, an executive secretary, vocational workers and clerical assistants; $5,100 for medical and clerical supplies; and $16,455 for rent, heat, light and the various general supporting services of the New York Tuberculosis and Health Association in its accounting and purchasing departments, as well as in the health education service, the information service, the clinic service, the statistical service, and for the general direction.

The Laura Spelman Rockefeller Memorial Fund gave $32,000 towards the establishment of the Vocational Service, and the New York Tuberculosis and Health Association contributed the remaining $33,865.

[10] See Appendix G.

In other words, the Vocational Service for former tuberculosis patients cost annually $21,955; of which, each year, on an average, $3,167 was for medical service; $11,717 was for the required workers; $1,576 for medical and clerical supplies; and $5,485 for the indirect costs: rent, supporting services of the Association and the general direction.

The cost of establishment of a Vocational Service for the selection, proper placement and health supervision of former tuberculosis patients, such as was conducted by the New York Tuberculosis and Health Association, should be viewed in the light of a social and health experiment and demonstration. The per capita cost of $72 for the 911 applicants served during the three-year experiment represents a capital investment as well as a maintenance and operation cost for what was relatively a short term service. The purchase of equipment, establishment of contacts with other agencies, acquainting the sanatoria with the existence and purpose of the bureau were all overhead costs that would have been distributed over an indefinite period had the bureau not been conducted purely as a demonstration limited to three years. Much, also, of the cost of the bureau could be attributed to the fact that the research phase of the project was kept constantly in mind during the three years operation. More elaborate records were kept than would otherwise have been necessary for this reason. The compilation of statistical data and preparation of tables for this report came within the three-year period and therefore are also included in the $72 per capita cost.

The expenditures for Vocational Service during 1923 were at the rate of $25,000 annually; during 1924 at $23,000, during 1925 at $21,000 and during 1926, the last year, at $19,000. It is entirely probable that on a continuous basis and with accumulating experience and without the statistical work necessary because the bureau was a research project, the cost would have been reduced to about $15,000 annually for the same number of persons. It is also probable that the greater efficiency which would have come with time and with the wider acquaintance of the bureau, would have resulted in a larger number of persons being served by the same staff each year.

Of the actual per capita cost of $72 for 911 patients, $49 was for the cost of the staff required—medical, executive, vocational and clerical; $6 for supplies; and $18 for the indirect and general costs.

For this $72 per capita expenditure, the Vocational Service faced full responsibility, during what has been well called the all important third period of the treatment of tuberculosis. This period involves important social, medical, industrial and family problems for the tuberculous patient returning home and to work.

Details of budget are given in Appendix A.

CHAPTER II—STATISTICAL ANALYSIS OF CASE RECORDS

SECTION I—TYPE OF PATIENT APPLYING AT THE VOCATIONAL SERVICE FROM GENERAL, SOCIAL, VOCATIONAL AND MEDICAL DATA

THE three years' work of the Vocational Service assembled a large amount of material on 911 cases in the form of case records. The problem was to decide what part of this case material could best be used to answer the questions on which the experiment had hoped to throw some light—namely, whether such a program of medically supervised vocational guidance could contribute toward lowering the relapse rate of sanatorium graduates, and what kind of jobs, industries and working conditions were most favorable for the ex-patient who was returning to work. An Advisory Committee of persons familiar with different aspects of the problem of after-care was called together to consider what parts of the material were pertinent to these questions and to determine what form the report should take. Obviously the most accurate measure of the value of such a program as the Vocational Service had been carrying on would be a comparison of the medical progress of its clients with the medical progress of a control group similar in all respects save that it had not had access to such a program of after-care. The Association was not able to find any such comparable group, however. So far as it could learn at the time, no studies had been made of the relapse rate of the average run of cases such as were handled by the Vocational Service. Also relapse statistics from any one institution would be affected by the type of patient admitted, the length of cure and kind of care given. Moreover the judgment of the staff of the Vocational Service was that there were few industries and jobs per se which could be dogmatically called safe or favorable as employment possibilities for ex-patients; but rather that with few exceptions all industries contained some such "safe" jobs and that no one type of job was "safe" except in reference to the specific working conditions for that particular job. In other words, both the medical and vocational results of the experiment were difficult to measure.

The consensus of opinion of the committee was therefore that the experiment would make a definite contribution in depicting, through statistical data from its case records, the type of patient met with in operating such a service and the type of problem it presents, even though for lack of comparable figures no accurate measure of the medical or vocational success of its program could be made.

In addition to the general history and outline of the experiment already given therefore, the following pages contain descriptive material on the kind of cases handled from social, vocational and medical aspects, and the results obtained from the same three aspects so far as such results are susceptible of measurement.

Selection of cases for study

Out of the cases handled during the three-year experiment only those were chosen for the study in which the duration of medical observation at the Vocational Service had been six months or more. This gave a group of 676. Each of these was asked to return for a final medical examination by the same physician who made the first examination. In this way valuable comparative diagnoses were secured, and an opportunity given to fill in any gaps in the social and work history. The records used for the present analysis therefore are quite complete.

The response to the letter[1] inviting the patients to return for this examination was gratifying. Out of the 676 cases selected 446[2] returned for the comparative examination, a surprisingly large number when one considers that some of these patients had been out of touch with the Vocational Service for many months.

ANALYSIS OF SOCIAL FACTORS

Age and sex

What kind of cases come to such a bureau? Of what age, sex, nationality, education, marital condition, economic status, trade ability and general resourcefulness?

We find many more men than women among our 676 cases; 525 were men, falling in the following age groups:[3] under twenty, 39; between twenty and twenty-nine, 166; between thirty and forty-nine, 267; fifty years and over, 53. The 151 women divide by age as follows: under twenty years, 25; between twenty and twenty-nine years, 64; between thirty and forty-nine years, 57; fifty years and over, 5.

[1] See Appendix F.

[2] In a few instances when the patient was out of town a local tuberculosis specialist and the patient were written to with a request that an examination be made which the Vocational Service could use and the results given on a form supplied.

[3] These age groupings were used since into them the applicants fall in terms of placement problems: under 20 years come the untrained and inexperienced; from 20 to 29 the best training possibilities; from 30 to 49 the average married man with family responsibilities and little vocational mobility; and over 50 the old age problem.

It is seen that the women tend to be a younger group than the men, as also is the case in the general incidence of tuberculosis—the largest proportion of women coming in the twenty to twenty-nine-year group, and the largest number of men in the thirty to forty-nine-year group. The problem of old age, while it may seem great because of the difficulty of each case, is quantitatively small, less than 9% of both men and women being fifty years of age or over. Here again in the old-age group the problem is relatively smaller for women than for men. This last point may be partly explained by the fact that more elderly women patients than men can contribute to the family resources by housework and other home duties and therefore do not go out to work.

Nationality of patients

Little more than half the applicants are native born, 53% to be exact. The remaining 47% foreign born fall into the following groups in the order of numerical importance: Russian 83, Italian 59, Irish 27, Polish 20, Austrian 18, German 15, English 12, Hungarian 11, Greek 11, Porto Rican 9, Swedish 6, French 5, Turk 5 and a miscellaneous group of 34, coming from twenty-one countries. In other words, we have a decidedly mixed group with no great preponderance of any nationality except Russians and Italians.

Knowledge of English

Despite this large group of foreign born we do not find that lack of knowledge of English presented much difficulty in placement, although for those few who could not speak, read or write English, finding a job, other than the proscribed pick and shovel work, was a real task. Out of the total 676 cases there were only eleven who could not understand or make themselves understood without an interpreter, although there were 95 who could not read or write well enough to follow printed instructions or addresses.

Education

As to educational background we find of the 676 cases an upper crust of 26, or nearly 4%, who had some college education and 42 more, or about 7%, who had completed high school. Two hundred and fifteen had not completed grammar school and another 59 had no school education at all. This means that 40% of the 676 had not had sufficient education to enter most trades, even were the training and money available, for a grade-school education at least is a prerequisite to most. The largest group, as would be expected, had had grade-school education only, 224 out of 676. The total of those who had had no education, or only some grade schooling, is

approximately 76% of the whole. Only 127 of the entire number had had any technical training, including in this term not only trade training but such courses as stenography, bookkeeping and the like. It seems a fair judgment to say that the general educational average of the group is low.

Marital and economic condition

We find the 676 patients about equally divided between married and single—330 married and 346 single. There are 1385 children in the families represented by the 676 patients, 773 of these being children of patients or an average of a little more than two children to each of the married patients. Of these children of patients 89% are under working age. This means of course a big dependency problem for the married patients, to say nothing of the single ones who in many instances had parents or other relatives dependent on them.

Some light is thrown on the economic condition of the families by the Social Service Exchange reports, and also by what data on earnings and type of work previous to application at the Vocational Service could be assembled. Forty-six per cent, or 309 cases, were not registered at the Social Service Exchange.[4] Of the 367 cases which were registered, 79 were known only to such agencies as do not give financial relief. Of the 289 patients known to relief agencies, as far as could be ascertained, 129 had not received financial assistance.

It may be assumed therefore that 516 out of the total 676 cases studied, or 76%, had managed to meet the financial crisis so far without financial assistance other than that contributed by friends and relatives. This is somewhat surprising when one considers the nature and duration of the disease and the fact that it is prone to attack those in the prime of life when they are likely to have heavy family responsibilities. This fact has further interest in view of the low educational average of patients, already mentioned.

Of the remaining 160 patients receiving relief, 87 only were on a regular budget and 73 received irregular subsidy for special needs from time to time.

Economic status

At the time the patients applied to the Vocational Service for work, 536 of the 676 were not employed. Among the remaining 140 who were employed we find the following weekly earnings.[5]

[4] The tuberculosis clinics in general do not clear cases through the Social Service Exchange unless the case requires financial assistance.

[5] Any data on wages before the time of application to the Vocational Service is based in most cases on the patient's own statement.

TABLE I

WEEKLY EARNINGS OF 140 PATIENTS AT THE TIME OF THEIR APPLICATION TO THE VOCATIONAL SERVICE

	Weekly Earnings					
	Under $15	*$15–20 incl.*	*$21–30 incl.*	*$31–40 incl.*	*Over $40*	*Total*
No. of patients	36	29	41	25	9	140
Per cent	26	20	30	18	6	100

In other words, we have a few earning $40 or more; this 6% perhaps corresponding roughly to the 11% who had high school or college education. Not quite 50% were working for between $20 and $40 a week, and another 46% getting a very poor wage—less than $20 a week. Here again we may assume that this low paid 46% in general comprises the 40% before mentioned who had either no schooling or had not completed grade school.

Among the 536 who were not employed at the time of applying, and discounting 19 of these on whom information is lacking, we find that 64% had been unemployed six months or more, and 43% twelve months or more. This means two things—that it was hard for these 347 cases to find a job with a long period of idleness to explain away, and they needed a job badly because of the long period in which no money had been coming in.

Another indication of the economic condition of the group is the per capita income[6] which is available only for the 452 patients[7] living with their own families. We find that 143 or 32% of the cases studied had a weekly family income of less than $5 per capita and 148, or 33%, had a weekly family income of $10 or less per capita, while only 26, or 6%, had what might be termed a "good" family income, or $20 and over per capita. The balance of 92 falls between these extremes, with a per capita income of from $10 to $19 a week.

While the income of the first group mentioned sounds very low—less than $5 per capita weekly for 32% of the cases studied—it is interesting to note here that the "allowance"[8] families of both the Charity Organization

[6] The data on the income of the whole family is taken from the patient's statement, checked wherever possible by agencies knowing the family budget. This information applies to income at the time of application and does not include any subsidies from relief agencies.

[7] Information was incomplete on 43 of these cases on this point.

[8] Families receiving continuous financial assistance from the organization.

Society and the Association for Improving the Condition of the Poor have an average total weekly family income, including the subsidy, of less than $5 per capita. The average per capita income for the Charity Organization Society allowance families is $4.87 a week for families averaging 4.7 persons;[9] that for the families of the Association for Improving the Condition of the Poor is $4.34 for families averaging 4.1 persons.[10] Since these budgets supposedly are adequate for the families' needs, the fact that 32% of our group has a weekly per capita income of under $5 does not necessarily spell poverty for a large number.

ANALYSIS OF CASES FROM VOCATIONAL VIEWPOINT

Type of work

What was the vocational background of our group?[11] To determine this let us divide them into three groups of labor, clerical workers, and professional or executive workers, and sub-divide each into the skilled and unskilled classes. We find that 499,[12] or 75%, are in the labor group; 119, or 18%, are clerical workers; and 47, or 7%, have the status of professional or executive workers. The first two groups, labor and clerical workers, divide almost equally among the skilled and unskilled workers, with a slight balance in favor of the unskilled in the labor group. In the professional and executive class of 47 patients we find nearly twice as many skilled persons as unskilled,[13] 30 skilled and 17 unskilled. The whole group of 665, regardless of whether the work be labor, clerical or professional, divides almost equally between skilled and unskilled workers, 322 skilled as opposed to 343 unskilled. This seems a larger proportion of skilled workers than one might expect, and the proportion of skilled workers probably is larger than would have been the case had the bureau been conducted by other than a health agency. Many patients in the upper levels of work expressed themselves as willing to come to a general health agency for advice or actual help in finding work, but said they would not have gone to a "charitable" organization of any kind.

[9] Based on figures as of July, 1926 for 163 allowance families, obtained through the courtesy of the Charity Organization Society.

[10] Based on figures as of September, 1926 for 552 allowance families, obtained through the courtesy of the Association for Improving the Condition of the Poor.

[11] A complete list of the main occupations of the 676 patients will be found in Appendix E.

[12] Eliminating 10 who had no work record and one whose work history was not complete.

[13] The unskilled in this group include such kinds of work as undergraduate nurse, laboratory assistant, etc.

Stability of employment

Some light is shed on the stability of the group by figures on the duration of the longest job held by each patient before he applied; also by the number of jobs held by each before applying.[14]

Eliminating 10 who had never worked, and 92 more on whom the record on this point was incomplete, we have left a group of 574 patients 20 of whom have never worked three months on any job; 16 more of whom have never worked longer than between three and five months on any job; 93 whose longest job had been between six months and a year, and 445 who state they have worked over a year in some one place—the total number of months for this last group on their longest period of employment giving them an average of 67 months each.[15]

If this be even approximately a true picture it represents a surprisingly stable group of workers. In considering this point, however, the 92 must be considered whose record is incomplete and who probably contain the bulk of the shifting workers.

We may test the stability of our group from another angle when considering the number of positions each man held before applying to the Vocational Service. In arriving at this, 121 patients were eliminated whose number of jobs were legion, through general shiftlessness or occasionally through the nature of their work.[16] Any attempt to arrive at the number held by these 121 is hopeless and they may justly be regarded in general as representing the same group of 128 mentioned before, 36 of whom had never been continuously employed longer than five months and 92 whose record on this point was incomplete, but of whom we assume the 36 are a fair sample.

Again eliminating the 10 who have never worked and three in this case whose records are incomplete, we have a balance of 542 patients who stated they had held 2548 jobs in their past work history, or an average of 4.7 per person. This suggests the same conclusion to which the figures on the length of employment in the longest job led us—namely that while about

[14] This is based on the patient's statement. The number of jobs held by each patient is not conclusive evidence unless it is given per annum. It could not be given in that form and is therefore merely included as suggestive data.

[15] This last figure must be interpreted with the knowledge that the patient's tendency when applying for a new job is to wish to appear a steady and well paid worker. References to former employers were only occasionally looked up, upon request of the prospective employer, because of the volume and expense of the clerical work involved.

[16] In this group also comes a large number of such workers as visiting dressmakers, nurses, etc. whose work normally takes them from one job to another.

18% are a shifting unstable group moving rapidly from job to job, the remaining 82% have been fairly steady workers, even making reasonable allowance for over-statement on their own part of their length of employment.

Suitability of former vocation

As stated before, each patient's former work was discussed with him to determine whether or not it would be possible for him to return to it. Omitting the 10 who had never worked and whose record was incomplete, we find that of the remaining 665 cases there were 325 in which the patient's main occupation was work not in itself injurious to him in his present condition; and in 340 instances, or over half, his main occupation was work to which it would for one reason or another be dangerous for him to return. This is of outstanding importance to the placement worker. It means that it was necessary to find not only a new job after months of unemployment, but an entirely new line of work for half the cases presented.

It is interesting to see on what grounds the old lines of work were considered unsuitable.[17] In 133 instances the reasons against continuing the old work was the muscular strain involved. Into this group falls a large number of unskilled jobs, particularly outdoor work.

The source of danger in the next largest group, 83 cases, was risk of infection to others. Here of course we find all the food handlers, workers with children, etc.

Dust barred out 37, and chemical odors 54. In other words 91 were unable to return to their old lines of work because of risk of irritation to the respiratory tract.

Long hours—and here we find a number of watchmen—was the handicap in 14 cases; nervous strain, usually from high tension piecework, was the difficulty in 7 cases.

Other miscellaneous causes accounted for the remaining 9 patients.

Vocational resourcefulness of patients

Of the whole group of 676, 258 had no secondary type of work experience to which they might turn if their former main occupation was no longer suitable; while 238 had previously had one other vocation, and another 180 had formerly done two or more other types of work. The

[17] The particular job was in no case considered, but the patient's main line of work. There were many other cases, of course, where the old job itself was not available. In fact there were few instances in which it was.

placement problem in these cases, of course, was far easier than where the past experience gave only one vocational lead.

The greatest help to the placement worker in searching for a new job or perhaps both a new job and a new trade for a patient, is some suggestion from the patient himself. Sometimes these suggestions can be followed out; often they cannot be, either because of hazards of work or employment requirements in the industry. Any suggestion, possible or not as an employment guide, at least is an indication of the patient's resourcefulness. We find that 229 had no idea what they wanted to do or could do; and while 447 had some suggestion as to jobs for themselves, in 132 instances the suggestion could not be followed out for medical or other reasons. To put it another way, over half the patients had no feasible suggestion as to what they could do, or wanted to do, although strenuous efforts with as much tact as the combined staff could muster were made to draw them out into some expression of desire or preference.

Incidence of other employment handicaps than tuberculosis

This completes the picture from the social and economic viewpoint of the type of patient the Vocational Service had to handle.

Before we turn to the medical side of the situation there is another important aspect to consider which is on the border line of all three phases—social, economic and medical;—namely a summary of what employment limitations or industrial handicaps each patient presents, what these are and how numerous.

It has come to be a commonplace among placement workers for the handicapped that one seldom has an isolated handicap to deal with; that most patients present more than one physical or mental defect, to say nothing of the less tangible handicaps of poor personality and scant experience.[18] For purposes of analysis we may arbitrarily divide these placement handicaps into three groups—personality defects; defects in experience and education; and physical and mental defects. Let us consider the last first, as being the most objective. It should be noted that this group by no means includes all the physical defects disclosed by the medical examinations, but only those so marked as to be a definite source of difficulty when job hunting.[19] Out of

[18] Many of the judgments involved in making this summary are purely subjective, but since they represent concrete problems to the placement or case worker, it has been thought well to discuss and analyze them. They are therefore offered for what they are worth.

[19] For this reason these figures will not correspond to those given on page 32 where physical complications to the pulmonary condition, as shown by medical examination, are discussed.

the 676 patients we find 305, or 45%, presenting some definite physical condition other than pulmonary tuberculosis, sufficiently marked as to be reckoned with in finding a job; and an additional 54, or 9%, with a diagnosed or fairly well stubstantiated mental difficulty. In other words 54% are not only tuberculous but have some other physical or mental handicap as well. These physical defects occur in the following order of numerical importance: mental conditions, 54; visual defects, 49; leg defects, 39; difficulty in hearing, 30; tuberculosis of the throat in addition to pulmonary tuberculosis, 26; arm or hand defects, 24; heart disease, 18; spinal trouble, 13; venereal disease, 21; tuberculous glands necessitating the wearing of an unsightly bandage, 7; skin conditions, 5; and miscellaneous, 73.

Next we have the group of personality defects. It should be noted here that only pronounced cases are included, no case being classed as "unco-operative," for example, until repeated attempts had been made to induce the patient to take reasonable care of himself and to demonstrate a desire to work. Here are found those who admit they have no desire to work or have proven unco-operative, 235 in number; those who are completely "hospitalized" or are over-timorous about work, 14; lack of familiarity with English, 71; dirty or otherwise repulsive appearance, 39;[20] those who were such poor judges of their own ability as to be unwilling to attempt any job suited to them, 19; miscellaneous personality defects, 17. In other words, we find that 58% of all our applicants have one or more of these handicaps to getting a job which for lack of a better word are termed "personality handicaps." This fact of 58% having "personality handicaps" seems surprising in view of the previous evidence showing the employment stability of the group. A partial explanation may be that many of these personality difficulties developed during and indeed because of their disease.

The third general group of handicaps has to do with limitations of experience in one way or other. A trade harmful to the tuberculous condition with no other industrial experience to fall back on, is the lot of 150.[21] No useful industrial experience at all, 78; no education at all, 41; old age, 28; a bad work record, 24; a prison record tending to follow from job to

[20] A petty cash fund was kept in the office from which many a clean collar or shave was bought before applicants were sent to jobs, if they could not or would not secure one themselves.

[21] This includes those who have never worked in this country and whose trade training in other countries for one reason or other is of no use here; those who have worked only at some process now out of date, etc. This last group for example includes a painter of straw hats, now an obsolete industry; a hand maker of felt slippers, also out of style, etc.

job, 3. A total of 334 have handicaps of one or another of the types mentioned in this experience group.

This brings the total number of employment handicaps in the three groups of physical, personality and experience defects to 1087. In addition to these we find 109 with active tuberculosis which precludes their working at all; 83 who were required to work part-time only and under very special conditions; and 4 whom extreme financial stringency compelled to take the first job obtainable regardless of its suitability. These miscellaneous conditions raise the total to 1283 handicaps distributed among 596 patients, an average of a little over 2 handicaps each, in addition to pulmonary tuberculosis.[22] Only 80 patients, or 11.8% of the 676 patients studied, had no marked difficulty other than their pulmonary condition to overcome in finding a job, or in having one found for them. That these handicaps were generally distributed throughout the group is shown by an analysis of the number of handicaps per person in any of the three groups. Three hundred and eighty-four, or 57%, have two or more of the listed handicaps each in addition to their tuberculous condition; and 187, or 28%, have three or more each. This remarkable multiplicity shows as nothing else will the complexity of the vocational problem and suggests that it would be more efficient to serve these people in a bureau for persons with all types of handicaps rather than one devoted to convalescents from tuberculosis, since there are few that have tuberculosis without other complicating physical disabilities. Whether the multiplicity of handicaps would be the same, were some physical defect other than tuberculosis the main one, is open to question. Probably the situation would not be so complex largely because tuberculosis tends in the long run to hit at the poor, and the comparatively young, and is an exceedingly long, expensive and ambition-destroying disease. This tends to make the resulting group one in poor economic circumstance, with scanty trade experience and with greatly weakened morale.

ANALYSIS OF CASES FROM MEDICAL STANDPOINT

We now have some idea of how our group looks as to its social characteristics and as prospective employees. How do these persons appear to the examining physician? Into what diagnostic groupings do they fall; what was the pulmonary condition[23] at the time of application; how long a period

[22] With the possible exception of the 109 cases where the tuberculosis was active. Here it may have constituted the only employment handicap.

[23] The classification of the disease as worked out and approved by the National Tuberculosis Association is here used in diagnosis: Stages I, II and III describing the extent

of sanatorium care had they had; under how close medical observation since discharge had they been; how many had already worked since their discharge and before applying to the Vocational Service; to what extent were they cognizant of their own condition; and what physical complications to the pulmonary condition did they exhibit.

Pulmonary condition at time of initial examination

Forty-four cases, or 6% of the patients referred as having tuberculosis, were diagnosed after careful examination as being non-tuberculous. Many of these were suffering from bronchitis, bronchiectasis, emphysema and other pulmonary troubles which had been mistaken for tuberculosis. Some of them were kept under observation and even placed in employment on the grounds that they were suspect cases, but most of them were discharged, and referred to the State Employment Bureau for work.

The following table gives the diagnoses of the remaining 632:

TABLE II

632 PATIENTS DIAGNOSED ON INITIAL EXAMINATION
CLASSIFIED BY STAGE OF DISEASE AND CONDITION

	Total	*I Incipient*	*II Mod. Adv'd*	*III Far Adv'd*
Total	632	255	313	64
Active	74	14	37	23
Quiescent	343	91	211	41
App. Arrested	160	103	57	..
Arrested	55	47	8	..

We see first that 74 patients, or 11%, were diagnosed as active on the first examination. These, as stated before, were referred to clinics, the Hospital Admission Bureau, or in some cases to private sanatoria. These required further rest and treatment and were not ready for employment, although some of them returned later improved and were accepted as employment candidates. Of the remaining 558 in whose cases the diseases were not in an active form, 343, or 51% of the total, were diagnosed as

of involvement of the lungs, translated as "incipient, moderately advanced and far advanced" respectively; and the condition of the disease at the time of the examination described as "active, quiescent, apparently arrested, or arrested." Each patient is diagnosed both as to the amount of involvement and the condition at the time of examination. Thus, a third-stage quiescent patient is one whose disease is far advanced but whose condition was quiescent at the time of examination.

quiescent, 160, or 24% of the total, were apparently arrested, and 55, or 8%, were classified as arrested cases.

Since most of these cases had but recently come from sanatoria the large group of quiescent cases is to be expected. It is interesting in considering this phase of the diagnosis to note the comparatively large number of cases, 6% of the whole, referred by physicians and others as tuberculous who proved to be non-tuberculous and that only 8% of the whole group were arrested cases. One often hears plans discussed for the further rehabilitation of arrested cases of tuberculosis, but these figures at least show that the great bulk of cases needing vocational advice are in the group classified as quiescent. It probably also goes to show that these terms, which are only approximations at best, are loosely used in informing patients of their condition upon leaving many sanatoria, for a large majority of the quiescent cases considered themselves "arrested."

Upon the first examination of the 632 cases by the Vocational Bureau, including the active cases as well as the inactive cases, we see from our table that 255, or 40%, were first stage or incipient cases; 313, or 50%, were second stage or moderately advanced; and 69, or 10%, were third stage or far advanced. As might be expected there is a comparatively larger group of active and quiescent cases in the more advanced stages of the disease, and a correspondingly smaller number of apparently arrested and arrested cases in the moderately advanced group, and none at all in the far advanced groups. Five per cent of the incipient cases were active; 12% of the moderately advanced cases; and 36 of the far advanced. Again 36% of the incipient cases, 67% of the moderately advanced, and 64% of the far advanced were quiescent. With the apparently arrested cases comes the turning point. In the incipient group we have 40% apparently arrested; in the moderately advanced 18% and among the far advanced none. In the smallest class, the arrested cases, 18% are of the incipient group; less than 3% of the moderately advanced, and again none of the far advanced group.

Or to read the table in another way, of all the active cases 19% were in the incipient stage; 50% in the moderately advanced; and 31% in the far advanced. Of all the quiescent cases 27% were in the incipient stage; 62% in the moderately advanced stage; and 11% far advanced. Of the apparently arrested cases 64% were incipient, 36% were moderately advanced, and there were no apparently arrested cases in the far advanced group. Of the arrested cases 85% were incipient, 15% moderately advanced, and again there were no far advanced arrested cases.

This would seem to indicate that the moderately advanced quiescent case—

forming here over 31% of all the patients—is the typical applicant at such a bureau as the Vocational Service, and the type to whose needs its program should be suited. Incidentally, this preponderance of the moderately advanced quiescent case emphasizes the need for some provision for part-time work discussed elsewhere[24] in this report. The moderately advanced quiescent patient is starting to work at a critical period and if it is beyond his strength at the moment, should not be forced to work nine or ten hours simply because that is the average work day of the world. Because of the scarcity of part-time work in regular industry he will be forced to take full-time work unless part-time work is provided for him in shops designed for the purpose.

Medical care before application to Vocational Service

What benefit of sanatorium curing have these 676 patients had and under how close medical observation have they been in the months preceding their application?

Nearly one-quarter of the 676 patients, 23% to be exact, had had no sanatorium care before applying. They had cured at home or in some cases had not cured at all, before applying to the Vocational Service. Eleven per cent had spent two years or over in one or more sanatoria; 20% between twelve months and two years; 37% between three and twelve months; and 10% had had less than three months' curing. While figures on this point are lacking, it was the general experience of the staff that the 23% who had had no sanatorium training and the 10% who had been there less than three months were the most difficult groups to give vocational advice; the former group contained many who had yet to be convinced that they had the disease and many who had no conception of how different the régime of their life must be from what they had formerly followed. The second group, those with the very short period of sanatorium curing, included many who had not taken to the discipline of sanatorium life and had quickly left or been asked to leave. On the other hand many who had stayed in institutions for two years or more were hard to place successfully for another reason. While the protracted cure was no doubt vital from the point of view of health, it was often disastrous industrially; for the very habits of inactivity, caution and avoidance of responsibility which are necessarily stressed in the sanatorium régime, are likely in the industrial world to become or at least to seem to become laziness, timidity and unreliability.

The making of frequent examinations of specimens of patients' sputum

[24] See pages 14, 28, 50.

is one of the common precautions taken by tuberculosis specialists in after-care of discharged cases. A glance at the regularity of such tests therefore gives some idea of the thoroughness of medical supervision enjoyed by the cases studied. Out of 586 patients on whom the information is recorded as to the last sputum test made before they applied to the Vocational Service, we find that 67 had not had a sputum test in six to twelve months, and 66 had not had a test in over a year. We also find that 134 of our patients were not under any medical care before applying, another 130 had irregular and infrequent examinations, and 395 were under regular periodic medical supervision. This tells the story of lack of proper precaution in two ways; only 52% of the applicants were under periodic medical supervision and 20% had not had a sputum test in six months or over. Bearing in mind that 62% of all the cases either were active or quiescent—naturally in both cases requiring medical supervision—here is a great menace to continued improvement.

Physical handicaps other than tuberculosis

As shown before in the discussion of various types of employment handicaps a large proportion of the 676 cases studied had physical difficulties other than and in addition to their pulmonary tuberculosis. In the earlier discussion[25] where our concern was with the vocational possibilities of the patient, only those physical defects were noted which were so marked as to feature as employment handicaps. However there are other physical handicaps which may complicate the pulmonary condition and yet offer no difficulty when the patient is looking for employment. From the medical point of view these are just as important. Only 131 patients out of 676 had no physical defects shown up by examination other than the pulmonary condition. Moreover, there are comparatively few who had only one physical complication to the pulmonary condition. The figures are as follows: those with one complication to the pulmonary condition, 181; with two, 189; with three, 116; with four, 45; with five or more, 14. If it is hard to draw a picture of the last group, those with five or more physical complications to the pulmonary condition, it is no less hard to find a job for such a one.

What proportion of these 1164 physical complications do we find among each of the following classes of disabilities:—defects in the upper respiratory tract, the eyes, ears, heart, and among venereal diseases, mental diseases, and orthopedic troubles?

By far the largest group of complications is in the upper respiratory tract.

[25] See page 27.

There were 370 instances of nose or throat trouble out of which only 15 are definitely tuberculous. Then we have 229 instances of eye defects of which 172 represent slight impairment of vision and 57 great impairment;[26] 161 cases of impaired hearing of which 130 were slight and 31 marked; 24 patients with heart disease[27] divided as follows: Class I—six, Class IIa—twelve, IIb—six, Classes III and IV, none, Class V—none. There were 36 venereal and 59 mental cases. The orthopedic cases number 56 of whom 21 are tuberculous. Miscellaneous defects numbering 229 complete the total.

Perhaps the outstanding facts here are the great prevalence of diseases of the upper respiratory tract, the small number of heart cases in view of the general incidence of heart disease, and the comparatively large group of mental cases.

SUMMARY

The foregoing completes the data that our analysis offers on the type of patient applying at the Vocational Service, as to his general social backgrounds, his vocational status and his medical rating. A brief summary of the findings may not be out of place.

We find that we have a group of 676 patients of whom by far the greatest proportion are in early middle age—the women, who are decidedly in the minority, being somewhat younger than the men.

As to place of birth, about half are foreign born with a great preponderance of Italian and Russian.

The lack of knowledge of English is not a handicap to many but lack of education is serious, 76% having grade-school education or less and only 18% having any technical or trade training. To offset this, however, there is a small group—4%—who have had some college education.

The group divides almost equally between married and single—with an average of a little over two children each to the married patients.

The group is a low paid one on the whole as would be expected from the high proportion of the poorly educated and the large number of foreign born. Of those employed at the time of application 45% earned less than $20 a week and only 6% over $40 a week. Moreover 71% had a per capita income of not over $10 a week—half of these having only $5 per capita. Again 6% only had a per capita income of $20 or over.

Despite this low wage level and the fact that 43% of the total had been unemployed for a year or more, 76% had never received any financial

[26] If the patient wore glasses, the eye test was made with glasses.

[27] The classification here used is that of the N. Y. Tuberculosis and Health Association.

assistance from relief agencies and 13% only had been or were at the time on a regular budget from a case work agency. In other words while the group is largely composed of poorly paid and untrained workers it is surprisingly self-supporting.

The manual laborers predominate in the group studied—there are 75% of these as opposed to 18% clerical and 7% professional or executive workers—and the whole group divides about equally between skilled and unskilled workers. From data on length of employment in the longest job and the approximate number of jobs held, the group seems to have been a surprisingly stable one industrially, about 18% being shifting workers and 82% claiming fairly good employment records.

About half the studied cases came from work to which it was considered unsafe for them to return, nearly half had no other line of work to which they could turn, while more than half had no feasible suggestion as to what they might do or wanted to do.

A study of the physical handicaps, personality defects and marked experience limitations of the group shows that only 11% of the total had no other obvious employment handicaps than the pulmonary condition, while 57% have two or more handicaps each in addition to their tuberculosis and 28% three or more each.

From the medical viewpoint our study shows a comparatively large number of cases proving non-tuberculous, 6% of the total; a very small number of arrested cases, 8% of the total; and a very large number of quiescent cases, 51% of the total. Excluding the cases diagnosed as non-tuberculous, 40% were classed as incipient, 50% as second stage and 10% as far advanced. The moderately advanced quiescent case forms 31% of all the applicants at the bureau and is therefore the most significant element. The preponderance of this type of patient shows clearly the need for provision for part-time employment facilities in connection with such an employment bureau.

As to previous medical treatment 23% had no period of sanatorium care and 10% had been in institutions for less than three months. On the other hand 11% had had two years or more of sanatorium curing. Only 52% of the patients were under periodic medical supervision at the time of application.

The physical examination also showed clearly that tuberculosis—at least in this group—seldom occurs without other complicating physical disabilities, only 19% of the total having no other physical disability than the pulmonary condition. Among these complicating physical disabilities both res-

piratory and mental diseases run high, and heart cases a little lower than might be expected.

SECTION II—ANALYSIS OF RESULTS, VOCATIONAL AND MEDICAL

In the data analyzed thus far we have held strictly to the patient as he presented himself to the Vocational Service and to his previous history both vocational and medical. This was done partly to arrive at a picture of what kind of patient was served by the Vocational Service and partly to give a background against which could be shown what results may be achieved by such a program as has just been concluded by the New York Tuberculosis and Health Association. These results, as stated before, are difficult to measure for lack of comparative data but we may be able to express some opinions substantiated in part at least by fact.

VOCATIONAL RESULTS

Work history after applying

The vocational results can perhaps best be stated in terms of the following: how many jobs were found, both by the patients themselves and by the Vocational Service; what type of jobs they were; what wages they paid; whether they were better or worse jobs than the same patients had held before in terms of grade work and earnings; how permanent the employment was; why patients left their jobs, etc. And we shall want to look closely at the group who did not work at all after application to the Vocational Service to learn if possible, why.

Period of employment

Eighty-one of our 676 patients may be dismissed at the outset of our consideration of vocational results since they compose a group who were never eligible for work. Of this 81, 66 were diagnosed as having active tuberculosis and 15 as non-tuberculous.[28] They were discharged either to clinics or some other employment bureau.

This leaves a total of 595 who applied for work and were in condition to take it, although in some cases some little time elapsed before a complete diagnosis was arrived at.

[28] A group of the non-tuberculous was kept under vocational and medical observation for a time and some few of the active cases who improved in condition reapplied and were accepted later. For this reason these figures do not coincide with the figures on page 29 where the number of active cases and non-tuberculous cases is given as found on the original diagnosis.

Of these 595, 386 were employed some or all of the period during which they were under the observation of the Vocational Service and 209 did not work at all.

The average period of the observation of the 386 who did work was approximately seven months. They worked a total of 1888 months, or an average of 4.9 months each. Thirty-four of the 386 were employed during the entire period of observation and 352 had a total unemployment of 840 months or an average unemployment period of 2.3 months each. Thus we see that while 35% of the eligible patients did not work at all, the remaining 65% worked during 70% of the entire possible time.

Some of this work was actually found and the patients placed in employment by the staff of the Vocational Service. Some of it the patients found for themselves on advice from the Vocational Service as to the right type of work and surroundings. All those who could find their own work were encouraged to do so, for several reasons: the patient was more likely to be satisfied with a job of his own choosing; to get his own job built up his self-reliance; the staff was thereby left free to assist those who had a more difficult placement problem. It is interesting to see how the two groups of jobs compare, those found by the Vocational Service and those found by the patients after consultation with the Vocational Service.

First as to the actual amount of work: the Vocational Service secured 1048 months of work for 267 patients; while 228 patients[29] found 840 months of work for themselves. In other words more months of work were found for more patients by the Vocational Service. We find also that the average length of employment per patient was slightly greater on the jobs found by the Vocational Service. The average was 3.9 months of employment per patient as compared to 3.7 months per patient of employment found by the patients for themselves.[30] This is encouraging since it is a commonplace in placement work that the jobs people find for themselves are apt to be most successful and therefore it might have been expected that the balance would favor such situations as patients found for themselves. The group of 228 who found some suitable work for themselves undoubtedly contains a larger proportion of the resourceful and dependable applicants than the 267 whose jobs were secured by the Vocational Service.

[29] These two groups do not total 386 since 109 both found jobs for themselves and had work found for them by the Vocational Service and therefore appear in both groups.

[30] It should be noted here that patients who insisted on securing and working on jobs considered dangerous to their pulmonary condition were closed out as "unco-operative" from both vocational and medical supervision. These figures therefore refer only to "approved" jobs.

Earnings

In respect to earnings the balance is in favor of the other side. Patients secured a better wage for themselves than could be gotten for them by the Vocational Service. We find that the total amount earned[31] on "safe" jobs by the 386 patients is $166,187 or an average of $430.54 per patient. Since the total number of months worked was 1888 the average monthly wage was in the neighborhood of $87 or about $20 a week.

On the jobs secured by the Vocational Service $85,470 was earned or $320.11 per man, or an average monthly wage of $81.71 per patient; on those secured by the patients themselves the wages ran slightly higher—a total of $80,716 or $397.89 per patient. This gives an average monthly wage of $96.09 per patient. In other words, while the Vocational Service was able to secure more work per patient the patients themselves were able to secure a somewhat higher wage. This last fact again, however, is partly accounted for by the fact that those in the higher grades of labor were more likely to find their own positions.

Comparison of salaries before and after illness

The salary levels of the 140 patients who were employed at the time of application have already[32] been discussed. Let us now consider into what salary levels the whole 676 fell before time of application and compare this data with the salary levels of all those who worked after application to determine the trend.

Eliminating 11 who had never worked, we have the work records of 665 before the time of application to the Vocational Service[33] and the records of 386 who worked subsequent to application. Twenty-eight per cent of those who worked before applying earned less than $20 per week at their main occupation; 34% earned between $20 and $29; 25% between $30 and $39 and 13% earned $40 and over. The records of those who worked after registration at the Vocational Service show that 42% earned less than $20; 33% between $20 and $29; 7% between $30 and $39 and 2%, $40 or more. This shows a decided trend downward in wages. Before their illness 62% earned less than $30 and after their illness 90%; Before

[31] Piecework wages and days off could only be estimated. In collecting the data a conservative interpretation was made.

[32] See page 22.

[33] The data on the salary grades before applying is based on the wage in what seemed to be the patient's main line of work and at the last job in that line. The salary grades after applying are based on an average of what each patient earned in all jobs.

illness 13% earned over $40 and after illness only 2%. There are practically the same proportion of the two groups in the $20–$29 class, before and after illness.

A further analysis of the 386 cases who worked both before and after their application for employment, meaning in most cases before and after their illness, shows a surprising lack of uniformity in the general wage trend; one would perhaps expect a slight trend downward in wages for nearly all the patients. Instead of that we find that while the larger proportion did work for less money after their illness, quite a little group earned considerably more than before. Of the 114 patients earning less than $20 prior to their registration we find 77% in the same wage group subsequent to registration and 23% earning more. Of the 123 in the $20–$29 group before registration 46% maintain the same rating—another 46% drop to the less than $20 group, and 8% earn more. Of the $30–$39 class, 100 in number, 18% stay in that class; 70% earn less and 5% more. And lastly of the 43 in the $40-and-over group only 5% maintain their wage standard and 95% are forced to work for less. In other words we find three facts: there was indeed a general downward trend in wages between the two periods; the higher the wage the larger the proportion of patients forced to work for less; and yet in the lower salary groupings there was progress in rate of wages of quite a number of patients subsequent to application for employment at the Vocational Service.

Comparison of classes of work before and after illness

How about the progression of cases from one type of work to another? Was there a similar general downward trend from skilled labor to unskilled and from professional or executive work to clerical work or manual labor? As stated before of the whole group of 665 cases who had work records before applying 48% are skilled workers and 52% unskilled.[34] With this contrasts the fact that of the 453 patients working after applying at the Vocational Service only 28% are on skilled and 72% on unskilled work. Here is a downward trend indeed, more serious in its ultimate results than a downward trend in wages. It is largely accounted for by the fact that so many of the skilled trades followed were unsuitable from the medical standpoint and patients had neither the time, money nor inclination to become

[34] Includes some patients two or three times if they held both skilled and unskilled jobs, or were employed in more than one of the groupings, labor, clerical and professional and executive. The actual number of patients was the same as quoted before —386.

proficient in a new skilled trade in the first few months after discharge from a sanatorium.

Adherence to medical advice in securing work

It must be remembered that continuity of employment, salary grades, etc. are not the most important factors in securing work for the tuberculous. After all the prime requisite of a job for such a person is that it be "safe" from the medical standpoint. Here we are dealing with something difficult to measure, for the "safety" of each job depends not only on the nature of the work but the conditions of the work place as well. If, however, we may assume that indoor, seated, day time work is in general preferable to outdoor, standing, or night work for the tuberculous—it would be worth while to review briefly the jobs secured by the Vocational Service and by patients themselves, to see whether any better results in securing this kind of work were had by the employment bureau as opposed to the patients' own efforts in job hunting but under advice as to the kind of work suitable. Without quoting the figures in detail, we may summarize as follows; 88% of the jobs found by the Vocational Service were indoor and 75% of those found by patients for themselves were also inside positions. Of all jobs secured by the Vocational Service 61% were seated whereas those found by patients numbered 40%. And of day and night work, the Vocational Service provided 95.5% day work and the patients 93.3%. It would seem then that in conscientiousness in adhering to the kinds of work best suited to the physical needs of the tuberculous, the employment bureau ranks somewhat above the patient himself. This shows clearly from the figures despite the fact that as noted before only those patients were held under observation who followed the advice of the Vocational Bureau as to the suitability of their work from the medical standpoint. The balance would be far greater in favor of the Vocational Service if we included in the other group those who found for themselves, and insisted on keeping, jobs which the Vocational Service could not approve medically.

Reasons given for termination of employment

From the standpoint of industry how does the ex-patient measure up as an employee? Perhaps a glance at the reasons given for leaving jobs will shed light on this point.

Of the 611 jobs left where the reasons for leaving are indicated, in 52 cases the patient was discharged, in 170 cases he was laid off, in 303 cases he quit work, and in 86 cases he left on medical advice. The high percent-

age of "lay offs" is probably due to the chaotic state of one or two industries where large numbers of patients were employed—notably the radio industry which furnished a large number of suitable jobs at certain periods of the year but is too young an industry to be stable and is somewhat seasonal also. The still higher percentage of "quits" seems to indicate the inability of the patient to feel at home in a new line of work, to reconcile himself to a somewhat lower salary and in general to settle down to the new employment conditions made necessary by his physical condition and possibly to the difficulty of adjusting himself at all to a work day after his sanatorium treatment. The discharges, 52 out of 611, or 8½%, do not seem excessive. The figures should be interpreted conservatively on this point, however, since considerable complaint was received from employers about the ex-patient as an employee and we are therefore forced to assume that in many cases the patient quit work shortly before he would have been discharged anyhow.

Comparing again results as divided between work secured by the Vocational Service and work which patients secured for themselves, we find in general that there was a greater proportion of discharges and "quits" on the jobs secured by the Vocational Service and fewer "lay offs" and jobs left on medical advice. The data on this in percentages is as follows: of the jobs secured by the Vocational Service there were 11% discharges, 26% lay offs, 51% quits and 12% left on medical advice; of those which patients found for themselves 4% were discharges, 30% lay-offs, 49% quits and 17% left on medical advice. In other words we are led to assume that the mutual satisfaction of employer and employee with each other, as shown by the lower proportions of those fired and leaving voluntarily, was greater where the patient found his own work. But on the other hand, the physical conditions of work were better and the job more stable, evidenced by the lower number of jobs which had to be given up on medical advice and the smaller number of lay offs, when the Vocational Service was able to serve the patient.

Analysis of those who did not work after applying to vocational service

What of the group of 290 who did not work at all after application to the Vocational Service? What kind of patients composed this group and why were they impossible to place? This general question might be answered in part by answers to the following specific points. How many were barred out because they had active tuberculosis or were non-tuberculous? Was there in the remainder a relatively high proportion of elderly persons, persons with physical or mental handicaps other than those with educational limita-

tions, of those who had had an unusually long period of curing, and of those who had always been unstable as evidenced by the number and length of jobs they had previously held?

Of these the cases which are here significant are only 209 in number since 81 were ineligible on physical grounds, either because they were non-tuberculous or because their tuberculosis was in an active condition and they needed further curing rather than work.

In a comparison of these 209 cases who did not work with the general group of cases studied we find no evidence of the effect of certain factors which might have been expected to make the employment problem a complicated one. The fact of foreign birth; a lack of familiarity with the English language; a long period of sanatorium curing; inability of the patient to make any vocational suggestions; a poor work record as to continuity of employment—all these might be expected to be contributory to the placement difficulty. But on none of the points mentioned was the percentage greater in the group of 209 who were not found employment than among the basic group of 676.

We do find statistical evidence, however, that old age, lack of education, a record of having held an indefinite number of previous jobs and particularly the medical requirement of part-time work were handicapping features in securing employment. We find the percentage higher among the group of "unemployables" on all these points than in the total of 676 cases. There were 12% over fifty years of age among the unemployed 209, as opposed to 8% among the total; there were 11% with no education among the unemployed contrasted with 9% in the total; there were 26% in the first group who were classed as having an indefinite number of jobs in the past and 18% of the same type in the total 676; and there were 23% of the "unemployables" for whom the physician prescribed part-time work only while this class composed only 12% of the basic 676 patients. It will be recalled that a classification of all types of employment handicaps was made under three heads: experience limitations, physical complications and personality defects.[35] Our group of 209 unemployed persons shows 35% who had three or more each of these employment handicaps in addition to the pulmonary condition while the total cases studied have 28% only.

Some of the factors which seemed statistically not to have complicated the employment problem, such as foreign birth, lack of familiarity with English, etc., may of course have interfered with the patient's permanence in a job. The group of 209 just analyzed were those who had not been placed in *any*

[35] See pages 26–28.

work. Some of those who were placed repeatedly represented as difficult or even more complicated employment problems, but for these we have no means of statistical measurement.

This completes the picture of what results were achieved with the 676 cases from the vocational standpoint as far as our statistical data will give it.

MEDICAL RESULTS

The other side of the picture remains, the changes in disease and physical condition. We shall want to know what physical changes were observed in the general group, also among those under supervision of the Vocational Service during a considerable time as opposed to those only seen a few times. Then we shall want to know some further details about the group who died or had breakdowns during the period considered. What was their past medical history and what apparent causes of breakdown can be found?

Duration of medical observation

As stated before, the final examination used for comparison with the first in nearly all cases was made by the same physician who made the initial examination. A single standard for comparison is therefore assured on about 400 of the 449[36] cases used for comparison. The duration of the medical supervision of those 449 runs all the way from less than one month to over two years, but we find that 79% were under observation over six months and 54% over a year. A total of 2380 medical examinations were made on these 449 cases or an average of 5-1/3 each. In some cases there were lapses in the monthly examinations of several months when the patient left town or withdrew for other reasons and then reappeared for employment. For this reason the duration of observation is more significant than the number of examinations.

Changes in diagnosis since first examination

The following table (Table III) pictures the progress of the disease in the 431 pulmonary cases in which we have a comparative examination. The comparison is made both in the terms of (1) the amount of involvement, as indicated by the stage of the disease at the time of the two examinations, and (2) of the "condition" of disease at the time of examination.

[36] There were 467 comparative examinations made but 18 of these were of non-tuberculous patients and are therefore not included in the following discussion.

TABLE III

PROGRESS OF 431 PATIENTS HAVING PULMONARY TUBERCULOSIS BETWEEN INITIAL AND FINAL EXAMINATIONS, CLASSIFIED BY STAGE OF DISEASE (EXTENT OF LESION) AND CLINICAL SYMPTOMS (CONDITIONS)

DIAGNOSIS ON INITIAL EXAMINATION		DIAGNOSIS ON FINAL EXAMINATION																			
		ALL STAGES					I STAGE (Incipient)					II STAGE (Mod. Advanced)					III STAGE (Far Advanced)				
		Total	Active	Quiescent	Apparently Arrested	Arrested	Total	Active	Quiescent	Apparently Arrested	Arrested	Total	Active	Quiescent	Apparently Arrested	Arrested	Total	Active	Quiescent	Apparently Arrested	Arrested
(All Stages)	Total	431	70	157	56	148	166	6	28	37	95	201	28	103	18	51	64	35	26	1	2
	Active	36	24	9	..	3	4	1	1	..	2	16	10	5	..	1	16	13	3	..	..
	Quiescent	239	37	128	20	54	61	1	21	9	30	132	14	85	10	23	46	22	22	1	1
	Apparently Arrested	116	8	16	33	59	70	3	5	25	37	44	5	10	8	21	2	..	1	..	1
	Arrested	40	1	4	3	32	31	1	1	3	26	9	..	3	..	6	..	..	..	..	..
I STAGE (Incipient)	Total	172	12	34	33	93	144	5	21	32	86	24	5	12	1	6	4	2	1	..	1
	Active	6	3	1	..	2	2	..	..	..	2	1	1	..	..	..	3	2	1	..	..
	Quiescent	59	2	21	8	28	50	1	16	7	26	9	1	5	1	2	..	..	..	..	..
	Apparently Arrested	73	6	9	22	36	61	3	4	22	32	11	3	5	..	3	1	..	..	..	1
	Arrested	34	1	3	3	27	31	1	1	3	26	3	..	2	..	1	..	..	..	..	..
II STAGE (Mod. Advanced)	Total	222	46	101	21	54	22	1	7	5	9	171	24	87	15	45	29	21	7	1	..
	Active	22	16	5	..	1	2	1	1	..	..	14	9	4	..	1	6	6	..	..	.
	Quiescent	151	28	88	10	25	11	..	5	2	4	118	13	77	7	21	22	15	6	1	.
	Apparently Arrested	43	2	7	11	23	9	..	1	3	5	33	2	5	8	18	1	..	1	..	..
	Arrested	6	..	1	..	5	..	..	..	..	..	6	..	1	..	5	..	..	..	..	..
III STAGE (Far Advanced)	Total	37	12	22	2	1	..	..	..	..	..	6	..	4	2	..	31	12	18	..	1
	Active	8	5	3	..	..	..	..	..	..	..	1	..	1	..	..	7	5	2	..	..
	Quiescent	29	7	19	2	1	..	..	..	..	..	5	..	3	2	..	7	24	16	..	1
	Apparently Arrested	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Arrested	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

From the table we see first that our cases are diagnosed as follows on the first examination:

1st stage 172 or 40%
2d stage 222 or 51%
3d stage 37 or 9%

On the last examination the proportion for the same cases changes to the following:

1st stage 166 or 39%
2d stage 201 or 47%
3d stage 64 or 14%

In other words we find that the proportion of cases in the incipient or 1st stage remains nearly constant, while there is a diminution of 2d-stage cases and an increase in 3d-stage cases. Table IV shows in detail just where these changes occur.

TABLE IV

SUMMARY OF PROGRESS OF 431 PATIENTS BETWEEN INITIAL AND FINAL EXAMINATIONS AS SHOWN BY STAGE OF DISEASE (EXTENT OF LESION)*

Extent of Lesion on Initial Examination		*Extent of Lesion on Final Examination*		
Stage	*Total*	*Same*	*Decreased*	*Increased*
I. Incipient	172	144	..	28
II. Mod. Advanced	222	171	22	29
III. Far Advanced	37	31	6	..
Total	431	346	28	57

* Based on data from Table III.

From it we see that in 346 instances out of the whole 431 cases the area of the lesion, as indicated in the diagnosis by the stage of the disease, remained the same; in 28 cases it actually diminished and in 57 cases it increased.

But the area of the lesion is only half of the diagnosis. Equally important is the state of the disease as evidenced by the condition of the person.

Table III shows us that while on the original examinations we have 36 active cases, 239 quiescent, 116 apparently arrested and 40 arrested cases; on the last examinations we have 70 active cases, 157 quiescent cases, 56 appar-

ently arrested and 148 arrested cases. That is, we have an increase in the active cases, a decrease in the quiescent cases and, lumping the apparently arrested and arrested cases together since there is so little difference in them clinically, an increase in the arrested group. This side of the development of the disease can be clearly seen from table V:

TABLE V

SUMMARY OF PROGRESS OF 431 PATIENTS BETWEEN INITIAL AND FINAL EXAMINATIONS AS SHOWN BY "CONDITION" *

Initial Examination		*Final Examination*		
Condition	*Total*	*Same*	*Improved*	*Worse*
Active	36	24	12	..
Quiescent	239	128	74	37
App. Arrested and Arrested	156	127	..	29
Total	431	279	86	66

* Based on data derived from Table III.

From it we see that on the basis of condition of the disease alone, 279 remained approximately the same during the period of observation, 86 improved in condition and 66 became worse.

Since we have two ways of describing change in the disease for better or worse (1) by the stage of the disease or the area of the lesion and (2) by the condition of the disease, it will be worth while to make a combination of the data on which these two tables are based in order to determine how many patients made improvement or retrogressed in either respect or in both respects.

TABLE VI

SUMMARY OF PROGRESS 431 PATIENTS ON FINAL EXAMINATION AS COMPARED TO INITIAL EXAMINATION, CLASSIFIED BY EXTENT OF LESION AND "CONDITION" OF THE DISEASE[1]

	Condition Same	*Condition Better*	*Condition Worse*	*Total*
Extent of Lesion Same	237	71	38	346
Extent of Lesion Decreased	17	10	1	28
Extent of Lesion Increased	25	5	27	57
Total	279	86	66	431

1 Based on data derived from Table III.

From this table we see that of our 431 patients 237 did not change status during the period of observation either as to the area of the lesion or condition of disease; that 98 made some improvement in one respect or the other without becoming worse in other respects; and that 96 retrogressed either as to amount of involvement or condition of disease. Adding 7 patients who died of tuberculosis brings the figure of 96 who became worse to 103. Figured in percentages and including the 7 who died, we find that 54.1% remained the same in medical status, 22.4% made improvement and 23.5% retrogressed or died.

A possible index of effectiveness of program

Whether or not these percentages represent more or less improvement in condition for these 438 patients than they would have made without the period of observation under the Vocational Service could only be accurately determined by comparing these figures with those for an analogous group which had had no similar service. In lieu of such an external control group a study was made of two types of patients within our group of 438; those who had had the longest benefit of the program of the Vocational Service were contrasted as to medical progress with those who had not been under observation long enough to have been affected by such service as the bureau offered.[37] The first group of 80 comprises those patients who had been under both medical and vocational supervision by the Vocational Service for one year or more. The second group of 39 comprises those who had been under observation at the Vocational Service less than one month but in whose case, as in the case of the first group, the lapse of time between the initial and final examination was twelve months or more. Neither group included any cases which had had active tuberculosis on the first examination.

Of the first group, those who had worked under the close supervision of the Vocational Service for a year or more, we find on final medical examination that the condition in 16 cases was the same, in 60 cases improved and in 4 cases worse. Of the second group 3 were in the same condition, 22 were better and 14 worse.[38] Thus we have 95% the same or better in the group of those under observation over a considerable period of time and 64% the same or better among a group similar in every way except that they had

[37] The numbers are too small for forming definite conclusions. This method was suggested by the Advisory Committee referred to on page 18 as giving some basis for comparison between what happens to the sanatorium graduate who shifts for himself after discharge and the patient who is under the guidance of such a medium as the Vocational Service.

[38] Including one who died.

not been under guidance by the Vocational Service for any appreciable time. This would seem to indicate that vocational and medical after-care does have an influence in helping maintain a cure already begun.

Study of relapse cases

Out of the whole group of 676, 118, or 17%, had a definite relapse at some time during the three-year period.[39] Some of these eventually became better again, others did not. It is worth while to look at this group with a view to finding out if possible what were the causes of the reactivation of the disease. Did the reactivation of the pulmonary condition follow in the natural development of the tuberculous process or was the pulmonary condition aggravated by other physical complications? Was the group that had these reactivations composed largely of those who had given a history of previous relapses? And did it contain a high percentage of those who had failed to follow medical advice?

Apparently, at least among the group of relapse patients here considered, the presence of other physical complications has little to do with relapse from tuberculosis, for the proportion of those having three or more complicating physical disabilities was no greater among the relapse group than among the general run of patients. Twenty-five per cent of the relapse group had such complications and 33% of the general group of 676.

Nor do we find any statistical evidence that the relapse group here considered was composed of persons predisposed to relapse by previous history. The percentage of persons having previous relapses among these patients was 20% as opposed to 19% of the general group.

The percentage of the relapse group who had not been previously under periodic medical care was 32 as opposed to 48% in the basic group. Apparently regularity of medical care alone had no effect in reducing the relapse rate.

When we come to look at the stage of the disease into which these 118 cases fall we come nearer an explanation of the relapse. Only 27% of this group were incipient as opposed to 40% in the general group; 53% of them were moderately advanced, contrasted with 50% in the general group; and 19% were far advanced cases while only 10% in the general group were far advanced.[40] In other words we have here further evidence that the

[39] This group did not all return for comparative examination and therefore only part of them appear in the 438 pulmonary cases already analyzed for the progress of this disease. The 118 includes 19 who died of tuberculosis.

[40] The record was incomplete on the remaining 1% in the relapse group.

earlier in the course of the disease the treatment is begun the less the danger of relapse and therefore the greater the chance of a permanent improvement.

We find evidence also that the patient who prolongs his treatment long enough to achieve at least a partial arrest of his disease does not stand in as great danger of relapse. An appreciably smaller number of apparently arrested and arrested cases are found in our relapse group and a correspondingly larger number of cases who had not progressed beyond the quiescent stage. We find 60% quiescent patients among the relapse cases and only 51% in the basic group of 676.

SUMMARY

This completes the statistical data on what happened to our 676 patients after they applied at the Vocational Service, both as to their vocational record and medical progress. The result may be briefly summarized as follows:

Vocationally the cases eligible for work divide roughly into one-third for whom no work was found and two-thirds who worked about seven-tenths of the possible time, the other three-tenths of the time being spent in hunting for a job, periods of unemployment between jobs, waiting for complete medical diagnosis, etc.

We find a general downward trend in wages between what the patients earned before their illness and after, particularly among the better paid workers, only 5% of those formerly earning $40 or more a week being able to maintain their former wage level. On the other hand among the lowest paid workers—those earning under $20, 23% were able to earn more after their illness. There was also a very marked shift from skilled to unskilled work of all types as well as a drop from the ranks of the executive, professional and clerical workers into the labor group, this last fact being partly accounted for by the surplus of clerical labor in New York at the time. The total amount earned by the 380 cases who worked while under the supervision of the Vocational Service was approximately $166,187 or an average monthly wage of $87.

On comparing the results of the jobs found for the patients by the Vocational Service with those which patients found for themselves we see that while the total amount earned, the total number of months worked and the number of months of employment per patient were all greater on the jobs found by the Vocational Service, the earnings were about $15 per month greater on those which patients found for themselves. Conditions of work as evidenced by the number of jobs that had to be given up on medical

advice, were better in the cases where the Vocational Service made the placement. There were more discharges and quits but fewer lay offs on the jobs found by the bureau which is to be expected in part since the element of natural preference is bound to play a larger part in jobs which are selected individually by the one who is to do the work.

An analysis of the 209 for whom no work was found and who were equally unable to find work for themselves emphasizes the need for special provision for part-time work by showing the difficulty of placing those for whom it is required.

The medical results of the experiment as indicated by change in diagnosis over the period of observation are more susceptible of accurate measurement than are the vocational results.

Briefly, of the group of 438 pulmonary cases on whom there is comparative medical data—over a period of six months or more in 79% of the cases and a year or more in 54%—we find that 54.1% remained the same in medical status; 22.4% made definite improvement either in the amount of involvement or in the constitutional symptoms and 23.5% retrogressed or died.

Some light is shed on the effect of supervised employment on the progress of the disease by the analysis made within the group itself, where we contrast eighty patients who had been continuously under both medical and vocational supervision of the Vocational Service for one year or more, with thirty-nine patients who had been under the same supervision less than one month but where the period between the comparative examinations had been the same, over one year. This comparison hints that the combination of vocational and medical guidance was not in vain, for 95% of the first group proved to be in the same or better condition after the year's supervision while only 64% of the second group were the same or better.

A study of the patients who had definite reactivations of their pulmonary condition shows us little as to external causes of the relapse, but it does offer further evidence of the value of early diagnosis and a long enough period of cure to achieve at least a partial arrest of the disease before the patient returns to work.

CHAPTER III

SOME PROBLEMS THAT ARISE IN CONNECTION WITH PLACEMENT OF THE TUBERCULOUS

Need for special provision for part-time work

SOME of the problems in placement of ex-patients arise from the processes and organization of industry itself. The need for part-time work as part of the rehabilitation program for the tuberculous has already been mentioned. Industry does not absorb the part-time workers that tuberculosis and certain other diseases supply. It would seem that the need for employment for these for the most part will have to be met in special shops run on a semi-philanthropic basis.

Much stress has been laid on the difficulty of making shops of this kind self-supporting. With few exceptions, such as the Altro Shops in New York City, which has a homogeneous and already partly trained group with which to deal, it has been found almost impossible to employ physically handicapped workers on a part-time basis and make the enterprise pay its own expenses. If it were possible, employers in the regular channels of business might not so consistently refuse to employ the part-time worker. And after all—why should the ability to be self-supporting be a condition of survival of such shops. They are conducted as part of a curative program and while economy and as large a measure of self-support as is consistent with maintaining health standards is desirable, it is no more reasonable to expect them to be self-supporting than it would be to expect other health projects to pay in terms of the balance sheet at the end of the year, rather than in terms of prevention or alleviation of disease alone.

Why then should there be hesitancy about organizing part-time industrial shops for handicapped workers recognizing from the start that they will probably continue to run under subsidy to some extent? More part-time shops organized with health as the main objective, with as diversified trades as possible, and with more opportunities for unskilled work than skilled—this is apparently the only practical answer to the ever present need for part-time work in placing the handicapped.

Growing tendency of industry to require physical examination of employees

The ever increasing number of firms who require physical examination of all applicants for employment is another source of difficulty to employment bureaus for handicapped workers. It is clearly the duty of all health organizations to encourage physical examinations in industry as part of the general movement to increase health examinations, and yet the spread of this custom creates a serious problem for handicapped workers and in particular for those with an organic disease. More particularly this is serious since it is usually the larger, better equipped and more stable firms which consequently offer the best physical conditions for work, that demand a physical examination before employment. The employer who spends large amounts on industrial insurance and pension systems, is generous in matters of sick leave, and provides nursing and diagnostic service, can hardly be blamed for wanting to employ only those who would at least be considered good insurance risks.

Hours of work

There is a misconception as to the usual hours of labor on the part of the general public, including physicians, which leads to some difficulties in reconciling recommendations for work made by the physician with possibilities of jobs for ex-patients. Patients are usually referred to the employment bureau for the handicapped with the statement that they may work a "regular eight-hour day—no more." If the patient is a clerical worker, or if he is an executive or a member of a profession, or if he is a union man, the seven- or eight-hour day may be the average in his job and work with these hours is therefore not hard to find. But if he belongs to the great body of unskilled labor, or works at a semi-skilled or skilled trade not unionized, it is almost impossible to find him light shop work at less than a nine-hour day, and in certain kinds of work even longer hours are required.

Competition of commercial employment services

Another source of anxiety to the placement bureau for the handicapped is the constantly growing number of successful and reliable commercial employment bureaus and the dependence of employers on them for clerical help. Nearly all of the larger firms employing office help in quantity have working agreements with one or more such commercial employment bureaus and employ all their office workers through them. These commercial bureaus have large numbers of applicants and being under no obligation to place any but the best, are able to give efficient and prompt service. They are usually

large enough to employ a number of field workers and since they have no prejudices to overcome are able to advertise their wares by mail and in the newspapers. All this means that the handicapped bureau is handicapped in more ways than one in competition.

Limitations of local industries

There is another difficulty peculiar perhaps only to New York City. Contrary to popular opinion, New York, or rather Manhattan is not a manufacturing center for a large number of trades. Brooklyn, Long Island City, Jersey City and Newark have immense manufacturing plants and employ large numbers of skilled and unskilled factory workers. These are too far from Manhattan, however, for ex-patients living in Manhattan and the Bronx for whom a full work day is sufficient without the added strain of long commutation. There are of course certain manufacturing industries centered in Manhattan. An enumeration of the main ones will serve to show the limitations of the field for employment of the tuberculous. Among them are the garment industry; women's and children's shoes; candy manufacture; the fur business; printing; piano making; novelty manufacture, etc. Of these the garment industry is highly unionized and employs mostly Jewish workers. While the garment industry therefore can take care of its own handicapped workers who wish to return to the trade, it offers small opportunity for new recruits.

The women's and children's shoe trade is also fairly well unionized and employs only the more highly skilled of the trade as compared to the men's shoe business. This is therefore out of the field of opportunity also except for persons already experienced. Candy making is out of the question since it is food handling and therefore prohibited by law for ex-patients as well as by the policy of the Vocational Service. The fur trade is dangerous for tuberculosis patients because of the fluff and dust always present in fur shops. Printing, except in a few small shops, is barred out because of the odors, heat, humidity and noise of the press rooms. Piano making is unsuitable except for work on piano "actions," because of the heavy labor and the odor of varnish, etc. Player piano actions are too heavy for the ex-patients to handle but work on the ordinary piano action is often suitable. The novelty business, which employs large numbers of people on light shop work, is ruled out in all but a few instances because of the odor of celluloid pervading the shops.

This is not the whole picture of course. There are lines which do offer suitable work such as radio manufacture, fountain pen work, imitation jewelry

manufacture, jewelry case making and the like. The instances of unsuitable industries are not given to paint the task of finding employment for the tuberculous as impossible, for it is by no means that, but rather to point out where the limitations lie.

Ideas of patients about work

The attitude of patients themselves toward the new conditions of work imposed by their illness has been already discussed but there is a further phase of their attitude that is dependent on industrial conditions and is therefore pertinent here. Much of the light shop work, assembling, packing, sorting, counting and the like is usually done by women. While such jobs can often be found for men these are apt to scorn them as being work for women and boys and even though they may accept employment when the need for it is urgent they are apt to desert it for the first "man's job" that appears regardless of its suitability.

Another point on which the patient's attitude is hard to change is in recognizing the suitability of indoor versus outdoor work. The placement worker can explain in detail why the indoor job is preferable and the patient listens and agrees in theory but as likely as not a week later he will have given up his indoor job and gone out looking for commission selling or some other "light outdoor work." The habit of being outdoors has become so fixed during his curing that it overcomes any mere theory about the preferability of indoor work and each patient still cherishes the evanescent hope of locating a really light outdoor job.

Much could undoubtedly be done toward shaping the right attitude toward work for each discharged patient by the consulting physician in the sanatorium. Some warning should be given to patients before they leave the institution as to what they are likely to find in terms of demand for their labor and the wages obtainable. Their old work should be fully discussed with them there and advice given as to whether it was suitable or not, or whether it could be made suitable. Perhaps a plan by which some of our sanatorium directors could serve as advisors and actual examiners to employment bureaus for the tuberculous might serve to link the sanatorium régime and post-sanatorium life more closely and make the vocational advice given the patient in the institution less confusing and more applicable to industrial conditions.

Basis for referring applicants

There seems to be considerable difference of opinion among placement workers for the handicapped as to the basis on which applicants should be referred to employers for positions.

Is the employment bureau for the handicapped organizing a labor supply or acting as part of a medical program for the sake of the patient? Certainly it does no good either to employer or employee to send unfit persons to jobs. On the other hand a job which is really suitable can be found for most handicapped persons if the search for one be painstaking enough. While it sounds practical and efficient to say that the needs of the employer are the important factor, the employment bureau for the handicapped would hardly be in business on that basis, for there seems to be no demand among employers for this type of labor. The demand comes from the patient and from the medical profession—largely through the social service departments of hospitals of all kinds. What is needed is jobs that will minimize the danger of relapse, regardless of what is the physical ailment of the patient and it is the duty of the employment worker to find such jobs. If employers can be served while this program is being carried out so much the better, although except in times of shortage of labor supply, it is an open question whether employers would feel any lack if all employment bureaus for the handicapped were automatically closed. In other words the business of the employment worker in a placement bureau for inactive cases of tuberculosis is to try to reduce the relapse rate of ex-patients through vocational guidance and careful placement work. Careless placement work—the sending of unemployable persons to employers—would only serve to increase the relapse rate. If the physical and vocational needs of the patient are studied and a job found consistent with them there is little danger that the employer will be imposed on but the fact might as well be faced from the start that the justification of the existence of such bureaus as the Vocational Service is a medical and not an industrial one.

CHAPTER IV

HOW CAN PLACEMENT FOR THE TUBERCULOUS BE MOST EFFECTIVELY ORGANIZED

THE Vocational Service was expensive to operate. This was due partly to the intensiveness of work necessary to make any employment program for the tuberculous successful, and partly to the careful record-keeping necessitated by the research aspect of the undertaking. Conscious of this fact, and of the complexity of the problem of dealing with the handicapped, and the duplication resulting from the existence of so many bureaus for the handicapped in one city,[1] in 1924 an approach was made to six or eight of the other employment services for dealing with various special types of handicapped persons, to determine in what ways a closer co-operation among them might be possible to reduce expense and increase effectiveness. It was thought that some combination of field work could be made, or at least of record keeping on firms visited, and that perhaps later some joint housing scheme could be worked out for the dozen or more agencies chiefly interested.

Russell Sage Foundation study of employment bureaus for the handicapped

In 1925 the Employment Bureau for the Handicapped, a subsidiary of the Hospital Social Service Association, began to look about for a means of combining its work with that of other bureaus. A conference was called of agencies dealing with the handicapped. This resulted in a request from four[2] of the larger agencies to the Russell Sage Foundation to make a complete survey of the situation. This survey was made in the fall of 1925 and spring of 1926 by the Department of Industrial Studies of the Foundation[3] and under advice of a committee representing the agencies involved. The committee submitted the report to the Welfare Council of New York

[1] See Appendix C.

[2] The Institute for Crippled and Disabled, the Bureau for the Handicappeed, the New York Tuberculosis and Health Association, and the New York Heart Association—this last organization having since merged with the preceding organization.

[3] See "Securing Employment for the Handicapped—A study of Placement Agencies for this Group in New York City" by Mary La Dame, Department of Industrial Studies, Russell Sage Foundation.

City—with the request that it undertake the formation of the consolidated bureau for all types of handicapped employment work.

Problem of disposition of the bureau's work at the end of experiment

This study came at a most fortunate time for the Vocational Service. Its three-year period was drawing to a close and the question as to what disposal should be made of the bureau still was in abeyance. As the work developed the Association decided that while provision should certainly be made for carrying on the program of after-care which it had started, there was no good reason why employment work for the tuberculous should be carried on in an employment bureau separate from employment bureaus for other types of handicapped persons, and indeed that it would be preferable to develop the service within the auspices of a general bureau for the handicapped so long as proper medical supervision was given to the work wherever it was done. The Association felt, moreover, that to carry on the work in a separate bureau would be much too expensive, save for demonstration and research purposes. The work of the Vocational Service as an operating bureau therefore was discontinued May 1, 1926 and its program shortly after was merged into the new bureau which was to find employment for all types of physically handicapped persons.

Conclusion of Foundation's report

Before leaving the subject of the Russell Sage Foundation study of New York City employment bureaus for the handicapped, it may be well to summarize some of its general conclusions, since these bear on how placement for the tuberculous may be carried on in future.

The report finds that approximately $100,000 is being spent annually in New York City for the placement of handicapped persons in a number of bureaus, that there is much duplication both in handling cases and approaching employers; that as the work is now organized no one agency can afford to pay for the kind of leadership necessary to direct this work. The conclusion is obvious. A central service would be a much more efficient and economical system for placing handicapped persons. The report further recommends:

(1) That an educational campaign be carried on among those likely to use bureaus for the handicapped, to overcome the general lack of information in such agencies as to what facilities are available for their clients.

(2) That employment work for the handicapped be done under guidance of an advisory committee on which both employers and the medical profession are represented.

(3) That some closer co-operation should be worked out between the employment agencies and the hospitals, clinics and family welfare agencies, to insure proper methods of referal, diagnosis, and case work service for handicapped patients.

(4) That work tolerance classifications for other types of handicapped patients, such as that worked out by the New York Heart Association for cardiac cases, and by the Vocational Service for tuberculosis cases[4] be devised by the medical profession as a proper basis for placement.

[4] See Appendix G.

(5) That some standardization of forms, terminology and record keeping is essential to the success of placement work for the handicapped, whether done in one bureau or many.

(6) That closer co-operation be affected between employment work for the handicapped and the State Bureau of Rehabilitation which offers training facilities for handicapped persons.

The place of the tuberculous in a general bureau for the handicapped

Nothing in these recommendations is inapplicable to the placement of the tuberculous. There seems no reason for the maintenance of a separate bureau for the tuberculous provided their special needs and interests can be properly safeguarded in a general bureau such as is recommended by the Russell Sage Foundation report. The problem here is twofold: medical and vocational. It is not safe to do placement work for the tuberculous without periodic examinations by a tuberculosis specialist who knows the varied demands of industrial life. This means something more than the ordinary tuberculosis clinic service, for the average physician, specialist or not, is not familiar with the physical demands made by various types of jobs. The prime characteristics of tuberculosis are its chronic course and its tendency to frequent relapse. The placement worker for the tuberculous, therefore, needs much more medical guidance than the worker dealing with some other types of handicapped persons.

On the employment side the interests of the tuberculous would have to be equally well guarded in such a general agency for another reason. The tuberculous probably are the most discouraging type of handicapped to deal with and possibly also the hardest to induce industrial firms to employ. Their field of employment is greatly limited and jobs must be individually suited to them. For this reason in a general bureau where there is found to be a certain amount of pressure for volume of placements the tendency might easily be for the tuberculosis cases to be slighted unless this possibility were carefully guarded against.

CHAPTER V

QUESTIONS WHICH THE EXPERIMENT HOPED TO ANSWER

THE main points on which it was hoped the experiment of the Vocational Service would throw some light have been stated in the Introduction to this report.[1] Let us take them up one by one here as questions and see what answer our experience gives them.

"*Is it possible to determine what are suitable occupations for the ex-tuberculous?*" It would be convenient if the answer to this were a simple "yes" or "no" and if "yes" could be followed by a list of suitable industries and jobs for ex-patients. The experience of the Vocational Service is that the only possible way of determining what occupations are suitable for the tuberculous is to map out certain general guiding principles and prohibitions and then to test each job *in its individual office, shop or factory setting*, by these principles and prohibitions to see whether it measures up to the standards set by them. In other words, there are no industries in which *all* jobs are suitable for the tuberculous and on the other hand there are only a few industries which have *no* jobs suitable for the tuberculous. Moreover, there are no occupations suitable for the tuberculous without reference to the particular conditions surrounding each job. It was stated before that a rough list of such occupations had accumulated through experience but it must be remembered that this list may have value only in New York City where it developed and that even for New York it is only suggestive. It would seem, therefore, that placement of the tuberculous will always have to be done on an individual basis and that while further experience will no doubt bring to light new industries that offer many opportunities to them and new occupations that tend to be "safe" in most instances, the individual peculiarities of each job and each patient's condition will continue to hold preference as the determining factors in selecting work over any dogmatic rules which may be laid down.

"*Do they (ex-patients) actually need vocational advice or employment assistance or both and why?*" Here we are dealing with somewhat subjective material. A steadily increasing volume of work; the return of old patients in large numbers; the fact that the service was used by persons in

[1] See page 6.

professional and executive lines of work and in the skilled trades as well as by unskilled laborers; the willingness of patients to co-operate as shown by the very large proportion who returned on request for a comparative medical examination; the apparent lack of knowledge on the part of patients as to what kinds of work are suitable for them; the fact that the Vocational Service was able to reinstate a number of patients in their old jobs which they would not otherwise have been able to secure; the success of the Vocational Service in securing jobs suitable from the medical viewpoint as compared with those patients secured for themselves, evidenced by the lower percentage of jobs that had to be dropped on medical advice—all these and more seem to point to a need for some similar program of combined vocational and medical after-care. It would be desirable to have in the sanatoria medical social workers with a thorough knowledge of industry as well as of tuberculosis who could talk over each patient's old work in detail with him and give him a clear idea as to what kinds of jobs he must seek and avoid. It will obviously be a long time, however, before sanatoria are equipped in this way and in the meantime the returning patient needs both advice as to what occupations he can follow and help in locating himself.

"*How do employers and fellow-employees feel about employment of the tuberculous? If their attitude is hostile can this hostility be minimized?*"

During the three years' work described in this report very little hostility toward working with ex-patients was encountered from fellow employees. In general the policy was followed of placing not more than two or three patients in any one firm, as insurance against such fear on the part of fellow workers. In many cases employers feared that their own men would be afraid of the newcomers but their fears appeared not to be well grounded.

The attitude of employers toward employing the tuberculous, as might be expected, ran all the way from those who were aghast at the idea to those who actually seemed to prefer to employ them. The impression of the staff was that barring out all firms which had medical examinations, sick benefits and the like, the average employer would as soon employ the tuberculous as any other in times of labor shortage, provided his first fears could be dispelled; and that in times when there was a surplus of labor he did not care to bother with promising particular jobs for individual applicants and holding the job till the man appeared, but preferred to pick and choose from those who were on hand when he needed them. Three factors seemed essential to the successful filling of a job—a really promising applicant, a long enough talk with the "boss" to quell his doubts about employing "sick men," and a similar

talk with the foreman concerned. This last point is important for most foremen have the power to "hire and fire," and it is therefore as necessary to "sell" the new idea to the foreman as to the man higher up. A policy of absolute frankness as to the prospective employee's condition together with the promise of continued medical observation including notifying the employer of any change for the worse, are the best methods of breaking down any hostility which the employer may have toward taking in men from such a novel employment bureau. Employers proved very willing to co-operate on the matter of medical follow-up, insisting that the patient report for examination if the Vocational Service reported that he was lax in this respect.

"*Can the relapse rate of ex-patients actually be controlled in part at least by providing some combination of vocational and medical after-care?*"

This question is of course the most important one of the experiment and has been discussed at length in the preceding pages.[2]

Our opinion is that a proper combination of medical and vocational after-care will do much to reduce the relapse rate, particularly if it is combined with vocational guidance in the sanatoria and preceded by a long enough period of curing. This opinion is strengthened by the results of the analysis made within the group covered by the report—where the medical progress of those who had been under the active supervision of the Vocational Service a year or more was contrasted with the medical progress of those who had shifted for themselves for a similar period of time but who had returned for the final comparative medical examination. The medical progress of the former group was sufficiently better than that of the latter to lead us to feel that some positive benefit was gained from contact with the Vocational Service.

"*If the relapse rate can be controlled by such a program how can the resources of the community best be organized to provide such after-care?*"

This question also has been discussed in part heretofore.[3]

From the experience of the Vocational Service it would not seem to matter particularly under the auspices of what organization placement work for the tuberculous is carried on. It is the combination of two or three elements into one unified program for the patient which is important and it will not be of much value unless two factors are assured. The program must have the backing of expert medical service, both advisory on general policies and specific individual cases; and it must be done as a case work job, linked up closely with the family welfare agencies of the community. Given (1) good

[2] See page 46.

[3] See pages 55–57.

vocational advice in the sanatorium, (2) a medical advisory committee to outline policies, (3) some one tuberculosis specialist or small group of specialists to examine and recommend work, (4) a medical case worker who can interpret the physician's findings to the one who finds the jobs as well as picture the job for the physician, and who can explain away the objections of the patient and his family to indoor work, etc.—given these four elements, it would not seem to make much difference whether the placement work was carried on under a State Rehabilitation Bureau, the local tuberculosis association, a general employment bureau for the handicapped, a family welfare agency or any other interested organization. Placement work for the tuberculous is indeed being carried on at the present time through all of the agencies mentioned, but in not one of them except the tuberculosis agencies to the best of our knowledge is it carried on with the kind of program just outlined. This may be only an accident; more likely it is due to a tendency not to keep the main purpose of a rehabilitation program for the tuberculous clearly in the foreground while actually doing the work. To reduce the number of probable relapses from the disease is surely one of the main objects of such work. This is a medical goal and to attain it the program must be considered on the whole as a medical one. Its most important features therefore are (1) its medical supervision and service and (2) the interpretation of the physician's diagnosis and recommendations to the placement worker, the patient, his family, the employer, and any others who form part of his environment as a convalescent. The moulding of a single point of view for so many persons is a case work job—it is not primarily an employment job. The distinction may sound trivial but on it may depend the success of the contemplated bureau in achieving anything more than a record of applicants handled and jobs filled at the end of each year's work.

The Vocational Service, as a part of the New York Tuberculosis and Health Association no longer exists but the need for the same service exists and for the same type of patients—as it probably does in all other cities. This need will be met in the future in New York through the Employment Center for the Handicapped, an employment service for all types of handicapped persons which has been organized, with the assistance of this Association. The tuberculous will be grouped here with cardiacs, orthopedic cases and other types of physically disabled persons. There seems no reason to doubt that this plan will work efficiently and well if only it can be borne in mind that it takes years to cure tuberculosis, that suitable work under proper conditions is part of the physician's prescription for the patient, and that the finding of jobs for the ex-patient for the first few years after discharge is therefore a matter which can only be done well on medical advice.

The vocational worker with the tuberculous is attacking a medical problem, through industrial channels and by the case work method. If this be kept in mind by each placement worker for the tuberculous a few years of experience should develop a technique; a better educated body of opinion on the employment of the tuberculous among employers, physicians and therefore among patients; and a mass of information about occupations and industries as suitable work opportunities for the tuberculous which will make the field seem somewhat less chaotic than it looks at present.

CHAPTER VI

SUMMARY OF CONCLUSIONS

1. Indications are that a medically supervised vocational and employment service for tuberculous ex-patients will aid materially in carrying through a recovery already started and will help to reduce the relapse rate.

2. Such a service may be run more economically in connection with similar service for other types of handicapped persons and will suffer no loss from such combination provided it be given expert supervision by physicians familiar with tuberculosis.

3. To be effective such a service should have the benefit of family case work service either within the organizations or through close co-operation with family agencies.

4. For the large majority of patients who are unable to return immediately to full-time work some special provision in part-time shops should be made.

5. Industrial training in skilled trades for the tuberculous has not proven possible from the vocational point of view for psychological and economic reasons.

6. The problem of inducing the patient to take suitable work could be greatly facilitated by adequate and continuous vocational counselling in the sanatorium.

7. It is not feasible to list trades and jobs which are suitable for the tuberculous but rather to list the factors to be avoided and sought in selecting work for them.

APPENDIX A

EXPENDITURES VOCATIONAL SERVICE

NEW YORK TUBERCULOSIS AND HEALTH ASSOCIATION, INC.

FROM JUNE, 1923 TO JUNE, 1926

	1923 (6 mos.)	*1924*	*1925*	*1926 (6 mos.)*	*Total for 3 Years*	*Average Annually*
Salaries:						
Medical	$1,500	$3,000	$3,000	$2,000	$9,500	$3,167
Executive Secretary	1,500	3,000	2,425	1,650	8,575	2,858
Vocational Workers	2,090	7,110	7,200	2,620	19,020	6,340
Clerical, etc.	1,400	2,850	2,102	1,234	7,586	2,529
Total	*6,490*	*15,960*	*14,727*	*7,504*	*44,681*	*14,894*
Supplies:						
Medical Supplies	1,032*	192	139	37	1,400	467
Clerical and Sundries	1,376	782	748	423	3,329	1,109
Total	*2,408*	*974*	*887*	*460*	*4,729*	*1,576*
Total Direct Expenditures	*$8,898*	*$16,934*	*$15,614*	*$7,964*	*$49,410*	*$16,470*
Rent, Heat, Light, Phone Service	950	1,700	1,700	750	5,100	1,700
Association's Supporting Services:						
Accounting, Purchasing, Health Education Service, Information Service, Clinic Service, Statistical Service	1,610	3,620	2,512	263	8,005	2,668
Overhead and General Direction	700	1,000	1,000	650	3,350	1,117
Total	*3,260*	*6,320*	*5,212*	*1,663*	*16,455*	*5,485*
Grand Total	*$12,158*	*$23,254*	*$20,826*	*$9,627*	*$65,865*	*$21,955*

*This figure includes purchase of fluoroscope.

APPENDIX B

TEXT OF PAMPHLET "COMPLETING THE CURE"

This pamphlet was written for patients and distributed widely in the sanitoria and at the office of the Vocational Service. It is reprinted here as an example of the type of publicity used by the Vocational Service. It has been in demand by tuberculosis agencies in other cities than New York.

COMPLETING THE CURE

NEW YORK TUBERCULOSIS ASSOCIATION, INC.
10 EAST THIRTY-NINTH STREET, NEW YORK, N. Y.

What next?

The day a man or woman leaves the sanatorium with arrested tuberculosis, like the day he graduates from school, is not an end but a beginning; it is a "commencement." He has learned in the sanatorium how to live; now he must go home and "commence" doing it.

Can I work?

Part of the living at home is working. Any red blooded person who *can* work, *wants* to work. The question you ask yourself, then, is not "shall I work," but "can I work?"

The only person who can answer that question is the tuberculosis physician under whose care you have been. If your disease is active he will probably tell you you need further rest and treatment either in a sanatorium or at home. If he does give you this advice, for safety's sake you must follow it! He knows. If your disease is arrested he will probably tell you you can work a normal day at light work and will add "take care of yourself!"

Just what does this mean? What is a "normal day"? What is "light work"? What does he mean by "taking care of yourself"?

What is a normal working day?

A normal working day for a clerical or office worker is from 9 to 5. The factory or department store is usually an hour longer—8 to 5 or 8:30 to 5:30. If you are advised that you can do an ordinary day's work it means that these hours are not too long for you.

If you are advised that you can do only part-time work, you face a difficult problem. There are *few* part-time jobs—three to five hours a day; the work is apt to be irregular and the salary is usually small. In general, there is more opportunity for women to do part-time work than for men.

If you can manage it, it is wiser to continue curing until you are able to work full time, rather than spend days in looking for part-time work and be poorly paid when you find it.

What is light work?

Next, what is "light work"? Physicians formerly advised "light farm work" or "light outdoor work" for tuberculous people. They no longer do.

Why not outdoor work?

Farm jobs are almost always heavy, poorly paid, and the hours are long. All

outdoor jobs involve lifting, carrying, constant walking or exposure to cold, wind, and dampness. These are the very things the tuberculous person must avoid.

A chauffeur must change tires, he must drive in the cold and rain. A time keeper or checker on a construction job must often haul over heavy material or stand around all day in mud. The gasoline filling station attendant is inhaling strong gasoline fumes all day, and must fill tourists' tanks rain or shine. The outside salesman lugs his bag of samples from house to house, or store to store all day and usually has the added discouragement and strain of being paid on a commission basis. And so it is with nearly all outdoor work—a very different affair from "curing" on a sanatorium porch. Of course, there is one exception to this rule —sometimes it is possible for an expatient to secure an outside job in a tuberculosis sanatorium. In such cases the disadvantages of outdoor work may often be offset by good living conditions, medical supervision and opportunities to "cure" in off moments.

But in general, the tuberculosis specialist of today says—"*Get your outdoors when you're off the job. Pick a job that won't be harmful to you and work at it steadily. Do your curing at home.*"

What kinds of indoor work?

What sort of work is *not* harmful? Experience tells us that any indoor job is suitable which does not involve heavy lifting, strain on the chest muscles, continuous walking, dust, fumes, dampness, and constant exposure to bad weather. This means, generally speaking, that clerical work, assembling, hand work, light machine work, etc., are suitable jobs, and there are many others not included here.

My old job

If you can go back into the job you had before you went away for treatment, and your physician says it is suitable, take it! You know it and will fit into it as a foot fits into an old shoe.

What salary should I get?

Any person who has had tuberculosis and has gone back to work should have enough income to ensure his having good living quarters, three good meals a day, and freedom from worry. On the other hand, it must be remembered that if you have not been working for some time you are not worth as much to an employer as when you stopped. His experience tells him that when people stop work they get "rusty." Moreover, he may be afraid that you will lose time and will have to pamper yourself on account of your recent illness. He may, therefore, offer you a smaller salary than you were getting until you are worth as much as the next man.

Help in getting a job

If you can't go back to the old job—*if you live in New York City*, and want advice and help in finding the kind of a job mentioned above, come to the Vocational Service of the New York Tuberculosis Association, 10 East 39th Street, Murray Hill 7772, Alice Campbell Klein, Secretary. We will tell you what we think you are able to do and help you find the job. But remember (1) we serve only *New York City*, and (2) *we can help only inactive or arrested cases* to find work.

How can I keep my job?

But finding the job isn't all. You have a limited amount of energy and if you are going to put it into your work, as you will want to do to get ahead, you will have to "take care of yourself" during the

other fourteen or sixteen hours in the day. By this your doctor means that the way to stay well is to live your life *outside* your job as though you were "curing."

Eight to ten hours sleep in an airy room and three nourishing meals a day are the routine for the tuberculous person who is working. *Nourishing meals* mean plenty of green vegetables, eggs and milk, including good plain cooking. *Eight to ten hours sleep* means that much *every* night—not long evenings spent in crowded, stuffy moving picture houses or theatres. Every time you stay up late you are drawing on your physical "savings account"; you will need every ounce of energy stored in that account if you are going to hold down your job.

If you follow out this kind of a routine there should be no reason why you can't earn a living, keep well, and be happy, but you must remember that "tuberculosis is hidden away in us like the charge in an old shot gun in the chimney corner, harmless until somebody pulls the trigger." The most common trigger puller is burning the candle at both ends. A day is divided among work, play, and rest. Your work time is fixed if you have a job. Your play time must be short for your rest time must be long if you are to "complete the cure."

"You can *work* and rest and stay well; you can *play* and rest and stay well; but if you work, and have too many play hours, you cannot rest; and Rest is the most important factor in staying well."

APPENDIX C

LIST OF 21 ORGANIZATIONS DOING EMPLOYMENT WORK FOR THE HANDICAPPED IN NEW YORK CITY

1. Employment Bureau for the Handicapped.
2. Employment Department, Institute for Crippled and Disabled Men.
3. Vocational Service, New York Tuberculosis and Health Association.
4. Vocational Adjustment Bureau for Girls.
5. Emloyment Department, League for the Hard of Hearing.
6. Employment Department, Brooklyn Bureau of Charities.
7. Handicap Department, Industrial Aid Bureau.
8. Employment Bureau, New York County Chapter, American Red Cross.
9. Employment Department, Association for Improving the Condition of the Poor.
10. Self-Support Department, Jewish Social Service Association.
11. State Employment Offices.
12. Vocational Service for Juniors.
13. Charity Organization Society.
14. Joint Application Bureau.
15. Catholic Charities.
16. Society for the Welfare of the Jewish Deaf.
17. New York Association for the Blind.
18. Brooklyn Association for Improving the Condition of the Poor.
19. Committee for Care of the Jewish Tuberculous.
20. United States Veterans' Bureau.
21. Employment Department, Girls' Service League.

APPENDIX D

WORK TOLERANCE CLASSIFICATION

Factors on which classification is based

The medical classification of the work capacity of the tuberculous ex-patient was determined by the Vocational Service on a number of bases:

(1) The duration and history of the disease.
(2) The character and extent of the lesion.
(3) The symptoms of the disease, if any.
(4) The complications to the pulmonary condition, if any.
(5) The previous work history, particularly since the onset of the disease.
(6) The intelligence and probable co-operation of the patient.
(7) What can be learned about home conditions.

On the basis of the above seven points, each patient referred for placement should be placed according to work capacity in one of the following groups:

Work capacity classification

**Maximum capacity*. Able to do normal day's "selected" work; i.e. eight hours office work or nine hours shop work up to twelve hours for inactive work.

Limited capacity. Able to do part-time "selected" work.

a. Six hours under ordinary conditions.
b. Four hours under ordinary conditions.
c. Four hours' work, seated, done during the day time, and work place near the home.

Minimum capacity. Able to work in specially supervised surroundings only; i.e. sheltered work shop, sanatorium, etc. This may also include home work provided patient does not have to call for and deliver the product.

* NOTE: The classification is given in terms of "maximum, limited and minimum order to avoid confusion with the already existing and commonly used classification capacity" rather than in the simple form of "Class I, II, and III" or "A, B, and C" in which describes the extent of the tuberculous lesion.

APPENDIX E

LIST OF 676 CASES CLASSIFIED ACCORDING TO MAIN OCCUPATION PRIOR TO APPLYING TO THE VOCATIONAL SERVICE

Occupation	*Number Patients*	*Occupation*	*Number Patients*
Clerks	68	Electricians	5
Salesmen	44	Engineers	5
Machine operators	29	Cooks	5
Chauffeurs, drivers	28	Elevator operators	5
Stenographers and typists	24	P. O. clerks	4
Waiters	17	Teachers	4
Nurses	14	Firemen	4
Finishers	14	Carpenters	4
Packers, labelers	14	Miners	4
Messengers	13	Laundry workers	4
Skilled metal workers	13	Barbers	4
Bakers	12	Physicians	3
Maids	12	Auto mechanics	3
Cigar makers	11	Machinists	3
Painters	9	Plumbers	3
Telephone operators	9	Longshoremen	3
Tailors	8	Polishers	2
Skilled mus. instr. makers	7	Pressmen	2
Bookkeepers	7	Ass't superintendent	1
Managers	6	Auditor	1
Compositors	6	Accountant	1
Cutters	3	Draftsman	1
Prof. theatrical performers	5	Designer	1
Pressers	5	Blacksmith	1

Miscellaneous[1]

Hotels, Rest., Hosp., Pers. Service	39
Stores, offices	24
Other skilled trades	44
Other unskilled trades	94
Casual laborers	11
Never employed	10
Total	676

[1] Miscellaneous is composed of occupations, too numerous to list each, held only by one patient.

APPENDIX F

SAMPLE LETTER SENT TO "CLOSED CASES," ASKING THEM TO RETURN FOR FINAL EXAMINATION. IT BROUGHT A GREATER RESPONSE THAN WAS ANTICIPATED AND IS THEREFORE GIVEN HERE AS BEING POSSIBLY SUGGESTIVE TO OTHER ORGANIZATIONS ATTEMPTING A SIMILAR PROJECT

VOCATIONAL SERVICE

CONDUCTED BY THE

NEW YORK TUBERCULOSIS AND HEALTH ASSOCIATION, INC.

244 MADISON AVENUE, NEW YORK, N. Y.

Telephone Caledonia 2240

My dear—:

I am writing to ask you to do us a favor.

We are making a study of tuberculosis and need your help to make it a success. For this study we are anxious to compare your medical record when you first came to us with a medical examination made this month. All of the patients who came to us some time ago are being asked to come in for this final examination. If you can manage this visit we shall not bother you again.

You will find a card enclosed. Please mail it to us, marking the time when it will be most convenient for you to have this last examination.

Your coming will be a personal favor to us and to Dr. Thorburn, and may result in establishing some facts about recovery from tuberculosis that will be helpful to other doctors.

Sincerely yours,

Secretary, Vocational Service.

APPENDIX G. COPY OF CARD ON WHICH HISTORY OF PATIENT, THE FIRST MEDICAL EXAMINATION, AND RECORD OF THE FIRST HOME VISIT, WAS RECORDED AT INITIAL INTERVIEW

GENERAL ACME 4035-11

Age | S. M. W. D. | C. H. P. | Referred by | Former Diagnosis | Date | Nature

Country of birth | Mother | Father | Applic. | 1st Pap. Citizen 2nd " | Date Applicant Came to U. S. | To N. Y. C. | Are Parents Citizens

Military Service | from | to | Org. | Rank | Duties | Service Disability | Mother Comp. | Father Fed. Bd. No.

S. S. E. Report | Cross reference

Agencies active (name visitors)

Other Members of Household	Kinship	Age	School or Occupation	Wkly. Earnings	Wkly. Contr.	Mental or Physical Abnormalities

General Appearance: Stature | Coloring

Carriage | Bright | Neat

Courteous | Responsive | Co-operative

Ambitious | Intelligent about ability

Education

COMMON SCHOOL | H. S. | COLLEGE | TECHNICAL TRAINING

Any other education

SPEAK / READ / WRITE

Knowledge Eng. | Other lang.

What technical ability

Occupation (Inverse Order)	Industry	Name of Firm	Address	From	To	Why Left	Weekly Earnings

At what age did Applicant start work? | Why? | What talents or hobbies?

With what jobs is applicant familiar besides these above?

What vocational suggestions have been made to applicant? By whom?

What preference or suggestion has applicant about job?

Is applicant still employed? | If so, why does he desire change? | If so, is he on payroll? | What salary?

Does employer know of the condition? | May we approach employer? | If not, why?

Remarks:

NAME | ADDRESS | FLOOR | PHONE | DATE CONTACT | CASE NO.

Tbc History (Date and mode of onset)

Tbc. diagnosis made by whom? What was recommendation?

What did patient do on learning of tbc. condition? NAME ADDRESS Severe illnesses other than Tbc. (approx. dates)

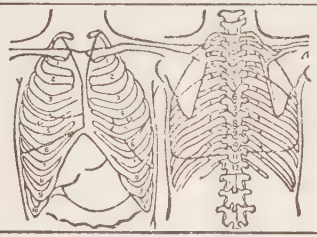
Institutional Record: Name	From	To	Went on advice of	Condition on admission	Condition on discharge	
						Present M. D. Address Last seen

Cough Expectoration Hoarseness Dyspnea Night sweats Pleurisy

Sputum on last report Pos. Neg. Date Date last pos. Hemoptysis: No. Dates Amt.

Present Condition: Gen appear. Strength Deformities

T. P. R. Ht. Wt. now Wt. max. U. R. T. Glands



Eye R. L. Ears R. L. Skin Venereal Hernia

Complications

Heart Bld. press.

Lungs

Fluoroscope

X-ray

Sputum Urine

Diag. Recommendation

Home Conditions: Type house 1F, 2F, T. Family { OWNS / RENTS / BOARDS } No. rooms F R Name landlord or agent

Amt. rent mo. Residence, how long OLD NEW Bathroom Is roof or park accessible?

How Heated Quiet Light Ventilation Approximate total no. windows No. court windows

Applicants own room: Sleeps alone in Light Outside No. windows Court Menu: adequate Well balanced

What are total wkly. earn. aside from applicants? ROOM BED How much to gen. exp. What is wkly. budget?

What financial assets other than wages? What debts or liab.?

What friends or rel. could contn. if nec.? SAVINGS, INVESTMENTS, INSURANCE, PROPERTY, ETC. DEBTS, DEPENDENTS, PAYMENT ON LOANS, ON INSURANCE, ON PROPERTY, ON HOUSEHOLD GOODS, ETC.

What club or church affil.

Amt. reg. relief or benefit How often From whom Address longest prev. residence Dates

FORM BI VOC. SERVICE, N. Y. TUBERCULOSIS ASSN.

(REVERSE)

12.M.265.
Employment of the tuberculous, 1928
Countway Library BBQ8490
3 2044 045 308 491

12.M.265.
Employment of the tuberculous, 1928
Countway Library BBQ8490
3 2044 045 308 491